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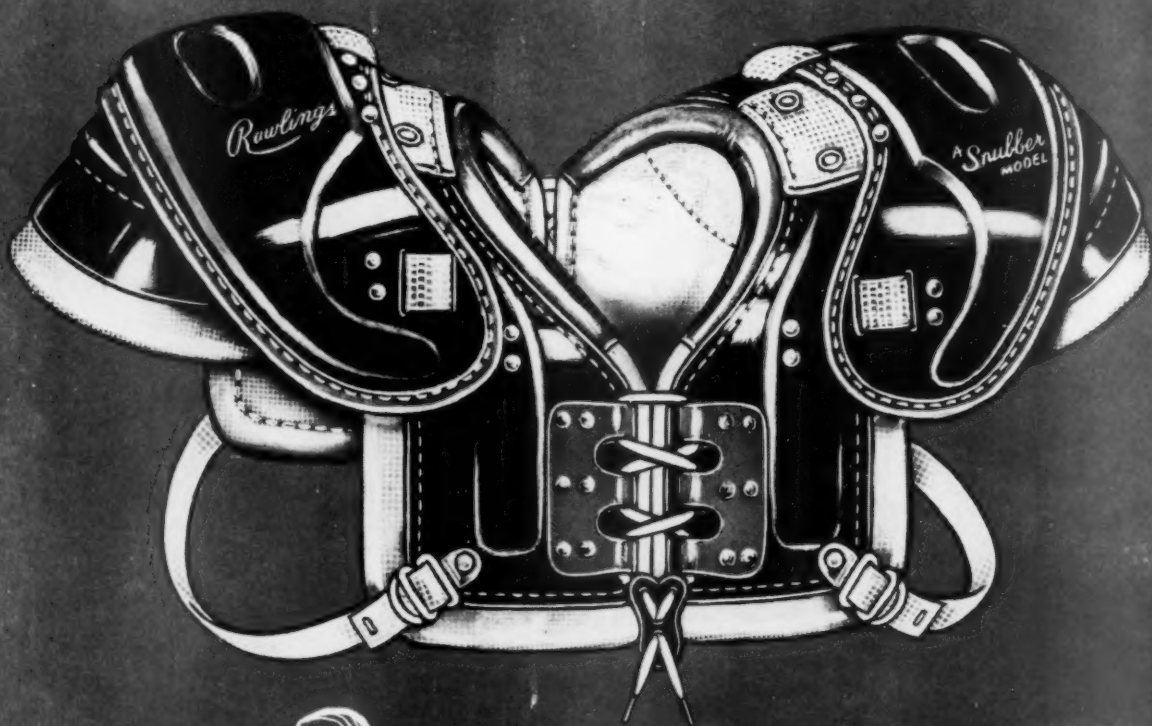
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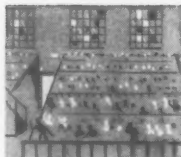
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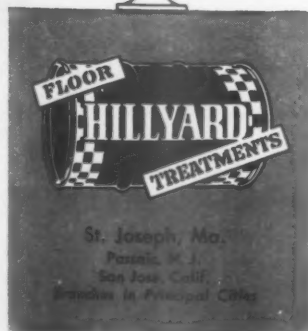
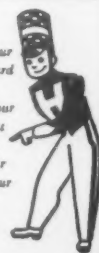
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Volume XXXVII

Number 3

November, 1956

8 BASKETBALL ARTICLES

FUNDAMENTAL DOUBLE PASS DRILL	7
<i>Bucky O'Connor</i>	
MANEUVERING FOR THE JUMP SHOT	12
<i>Hershel C. Adkisson</i>	
THE ZONE UNDER ATTACK	14
<i>Andrew W. Grieve</i>	
BREAKING THE ZONE BARRIER	18
<i>Bobby C. Watson</i>	
COACHES TENDER TRAPS ZANY ZONES	22
<i>S. J. Picariello</i>	
THE ONE-MAN ZONE BREAKER	24
<i>George P. Whitney</i>	
SCREENING THE ZONE	26
<i>Warren Wilbert</i>	
AN OFFENSIVE PATTERN FOR JUNIOR HIGH SCHOOLS	32
<i>James A. Tansey</i>	

1 SWIMMING ARTICLE

PRODUCING CHAMPION DIVERS	6
<i>John H. Williams</i>	

1 GENERAL ARTICLE

FOR MORE EFFICIENT COACHING—A WEEKLY TIME CHART	18
<i>Arthur J. Gallon</i>	

1 WRESTLING ARTICLE

SAFETY AND HYGIENE IN WRESTLING	28
<i>Robert J. Antonacci</i>	

1 ARTICLE ON EQUIPMENT

THE ISSUING OF EQUIPMENT	38
<i>E. H. Lacy, Jr.</i>	

1 FENCING ARTICLE

FITNESS FOR FENCING	40
<i>Maxwell R. Garret</i>	

6 FEATURES

FROM HERE AND THERE	4
EDITORIALS	20
FOR YOUR BULLETIN BOARD	33
NEW BOOKS	42
NEW ITEMS	57
BUYERS GUIDE	67

FRONT COVER ILLUSTRATION

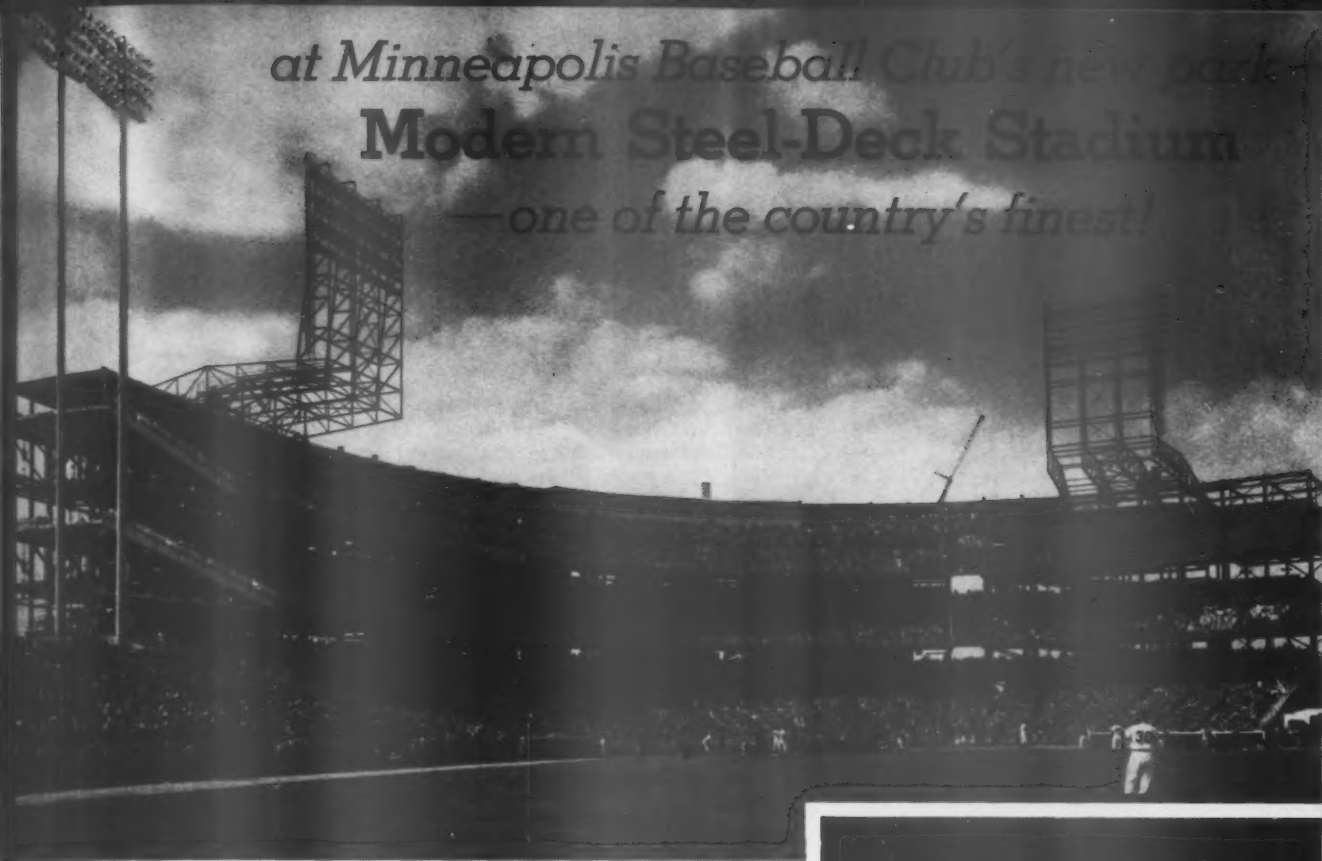
With an issue emphasizing methods of attacking the zone, it seemed apropos to present pictures of the four most common types of zones. Consequently, we called on Waldo Fisher who obligingly posed his Wildcats for these pictures.

A Look At This Issue and a Glance Ahead

IN THE October 1955 issue Cliff Wells mentioned the fact that several coaches say they think this twelve foot lane will cause many teams to play zone defense. It did work out that way in college games last season and should hold true in high school circles with at least ten states adopting the twelve foot ruling for this year. Therefore, we are presenting five articles on attacking the zone. We think

that you will also like the pictures and description of Iowa's "Fundamental Double Pass Drill." For next month we are presenting an illustrated article on Ev Case's fabulous fast break. Somewhat like the new model automobiles, we have a surprise in store which we are keeping under wraps until the December issue comes out.

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In their handsome and spacious new steel-deck stadium, the people of Minneapolis have one of the most modern sports centers anywhere. Owned and operated by the Metropolitan Sports Area Commission, the new stadium replaces old Nicollet Park as the home of the American Association's Minneapolis Millers.

The stadium is fan-shaped with three tiers and a roof. The upper two tiers have American Bridge Standard deck. Total estimated weight of structural steel is 1,555 tons, all but 376 tons of which was fabricated in the Minneapolis plant of American Bridge. Erection was sublet by American Bridge to Industrial Construction Company.

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WITH the Olympics in the offing the latter part of this month, it might be well to take a look at what is happening in the way of track and field performances. Oscar Strahan, coach at Southwest Texas State Teachers College, and G. W. Walker, coach at San Marcos, Texas, High School, worked out a table of comparable track performances, which appeared in our March, 1955 issue. Using this table, we compared the results of the NCAA track meets, starting with 1925, and taking the meets at five year intervals up to and including 1955. We wanted to take years in which the results were in yards instead of meters, as in Olympic years. The fourteen usual events were considered, with the point totals running as follows: 1925 (751); 1930 (850); 1935 (836); 1940 (883); 1945 (703); 1950 (907); and 1955 (974) . . . New York has 705 member schools and of that number 175 schools sponsor twelve or more sports . . . In a study of 400 regional basketball games it was found that in 1952 just a fraction under half of the baskets were scored without the ball hitting the backboard. This past spring in tournament games this figure had risen to 69.9 per cent . . . In the Atlantic Coast Conference half of the head coaches attended schools in the Southern states; however, 73 per cent of the assistant coaches on their staffs are from schools below the Mason Dixon line.

A few years ago there was quite a clamor to devise some method of deciding the winner in tie games. Recently there has been little emphasis in this regard — undoubtedly due to the fact that recently tie games have not been as prevalent as they were formerly. For example, in the 29-year history of the Big Six-Big Seven Conference there have been 30 tie games or almost one a season. However, in the last ten seasons there have been only 6 tie games. A third of the entire number of tie games occurred during the 1935, 1936, and 1937 seasons . . . According to sta-

tistics on last season's college games, 69 per cent of the winning teams were penalized more than the losing teams . . . Texas has a record 902 teams playing football this fall of which 150 are competing in six-man . . . This year Montana is sponsoring a state championship in eight-man football. A spot check of 72 college coaches from coast to coast indicates that there is no appreciable significance in regard to the positions they played as undergraduates. There were slightly more backs, ends, and centers in proportion to the positions on a team, and slightly fewer tackles and guards. Backs ran about 5 per cent more than their proportionate share of the team, while tackles were 7 per cent below their proportion . . . It isn't always true that great coaches were great players. Chuck Mather never played football in high school and was not a starter at Ohio Northern. Fritz Crisler weighed 92 pounds and was considered too light for high school football; however, he went on to become a nine-letter-man in college . . . What we think is rather a unique situation for a coaching staff is to be found at Tyrone, Pennsylvania, High School. Both members of the staff were captains of their teams at the same school. Johnny Chuckran, the head coach, was the Penn State captain in 1944 and Otto Kneidinger, his line coach, was co-captain eleven years later.

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Producing Champion Divers

By John H. Williams
University of Denver, Denver, Colorado

DIVING requires the utmost in physical condition, a willingness to devote long, arduous hours to acquiring skills, and emotional control coupled with courage to explore the unknown. It demands a degree of showmanship, and a natural flair for audience appeal manifested through personal appearance, body carriage, and good sportsmanship. There are few short cuts to success in competitive springboard diving.

Olympic swimming and diving coaches—Matt Mann, Richard Papenguth, Fred Cady, Mike Peppe; Olympic swimming and diving stars—Bruce Harlan, Tom Haynie, Bob Clotworthy; these and other coaches of NCAA national diving finalists and conference diving champions have contributed their ideas and favorite coaching techniques to a survey conducted during January and February of this year. These coaches, 122 of the best diving coaches in the nation, represent a total of 1,500 years of practical experience in teaching and coaching springboard diving. Both the Amateur Athletic Union of the United States and the College Swimming Coaches Association of America gave support to the study.

In addition to the widely accepted coaching techniques, many new and valuable methods of coaching diving were uncovered. This article is a compilation of the best methods and devices used by diving coaches today.

Periodic personal conferences between the coach and the diver are highly recommended as a method for motivating and stimulating divers. By having the diver outline his goals and purposes, a contract is set up, the terms of which can be achieved only

by an all-out effort on the part of both the diver and the coach.

The development of an informal relationship between the coach and the diver produces the most favorable climate for achieving the best results. Activities in themselves are neither formal nor informal; it is the manner of presentation that makes them so. Certainly the presentation of coaching techniques with enthusiasm and skill will make the experience a forceful one for the diver, and is strongly recommended.

Highly regarded as a coaching device by those coaches who have one, is the use of a diving board constructed over a box of sand. In a relatively short space of time the diver can practice correct procedures in the hurdle, fundamental forward and backward jumps, and even simple somersaults. An article by Jack Ryan published in the February, 1954 issue of the *Athletic Journal* presents suggestions and simple plans for the construction of the sandbox and mounting of the springboard. The benefits to be derived from the use of this device prove that it is of great value in coaching diving.

(Continued on page 64)

JOHNN WILLIAMS served in both World War II and the Korean conflict and holds the rank of lieutenant colonel in the air force reserve. While competing at Denver University he won the Skyline Conference diving championship. This past year he earned his master's degree at the University of Washington, and last summer joined the staff at his alma mater.

Fundamental Double Pass Drill

By Bucky O'Connor

Basketball Coach, University of Iowa

Series A





Series B

FOR the past several seasons, while coaching in high schools and at the University of Iowa, we have used a simple double pass drill which we feel has been a tremendous help to our players in improving their ball-handling. The fundamentals of pivoting, pivot play, and screening are incorporated into this drill. It is also the basic formation for our offensive patterns. Once they have mastered the few simple rules, the players seem to enjoy all of the variations we can devise off this drill and it becomes a fascinating thing for them. Actually, the one basic rule which must be remembered is that when a player throws a long pass he must always go behind the man to whom he threw it in order to get a return hand-off and permit the player who received the pass to screen for him.

Basic Fundamental Drill

Series A, Illustrations 1 through 10, show our players lined up with partners for the basic fundamental drill. The player who is wearing a dark colored jersey throws a long pass to the player wearing a light colored jersey. As they come together, a short return pass, or hand-off as we call it, is tossed back to the player who is wearing a dark colored jersey. This is the first fundamental screen that we try to teach in our offense. After the first two players complete their double pass, then the second player who is wearing a light colored jersey starts a long pass to his partner and comes forward for his return hand-off and screen before he passes to the third player who is wearing a dark colored jersey. This drill can be worked with any two or more players. It is used very effectively with a double pass, that is, the same two partners execute the passing maneuver twice or three times and return to their original positions. Pivoting and real speed in ball-handling are developed because the boys like to go at top speed once they have mastered the drill.

Double Pass Drill With a Scissors Off the Pivot

We use the drill shown in Series B, Illustrations 1 through 10, to change up the forwards and the guards. The guard passes to the forward who is coming from the corner, takes a return hand-off on the outside, and continues to the corner with a dribble as the forward goes to the guard position. The guard pivots to the outside to protect the ball and then feeds the post man. Then the passer becomes the first cutter, followed by the forward

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who is cutting from the guard's original position. The change-up, through double passing along the sideline, can be very effective in confusing defensive players when a team is playing against a straight man-for-man defense. This same double pass drill can be used by the two guards out in front. The pivot man is constantly moving around the keyhole area for a pass in from either the forward or the guard.

Pre-Game Warm-Up Drill

In our pre-game warm-up drill, Series C, Illustrations 1 through 18, we use the double pass. All five members of the team are included in this drill. The players like this activity and enjoy the many variations we can run off it.

As shown in Illustration 1, the two guards out front have tossed a long pass and have just exchanged the hand-off with a simple screen maneuver. Illustration 2 shows that the left guard has passed to the right forward who is coming out to meet the pass and cut toward the middle of the court to take a long pass (Illustrations 3 and 4). Illustration 5 shows the same forward receiving a return hand-off with the other forward nearest the basket for another simple screen. The right guard who has moved over to the left is coming in for a pass from the right forward.

After the guard receives the pass from the forward, he passes to the center who is coming out from the basket as shown in Illustration 7. In the beginning, the center jockeys around under the basket until the ball is thrown in from the guards to the forwards and then he goes to the side the ball originally comes in on. This jockeying around gives him more room to come out for a double pass with the incoming guard (Illustrations 9 and 10). Then the center continues on outside and is ready to reverse back into a five-man weave coming toward the basket. We call this maneuver our *upside down figure eight*. The basic rule to remember after the five men start the weave is that the man who is coming away from the basket is always handing



BUCKY O'CONNOR played forward on the Drake University basketball teams of 1936, 1937, and 1938, graduating in 1938. He accepted the position of golf coach at the University of Iowa in 1948. After serving one season as assistant basketball coach, O'Connor was appointed head coach in 1951. In five seasons his teams have won 87 and lost 31 games, for a percentage of .737. In 1955 and 1956 teams coached by O'Connor won Big Ten titles.

off to the cutter from the inside. Actually, once the guards double pass and the forwards double pass, the only other double pass is between the guard and the center. From then on it is only a five-man weave under the basket.

All of our offensive play patterns are then mixed in with this drill in the warm-up practice and we feel they are all conducive to good ball-handling because we try to have all

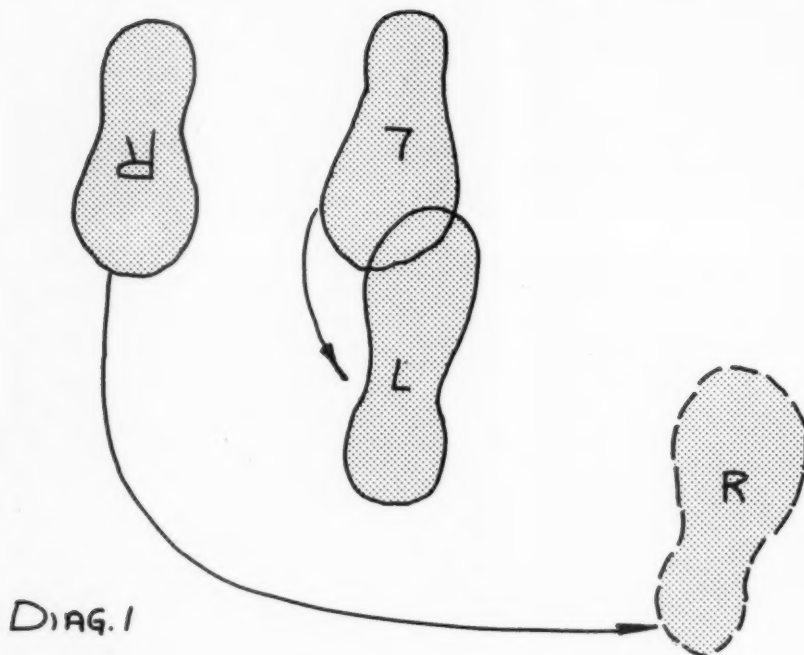
the drills go at top speed.

Another thing we have found very helpful is to have our men constantly interchange positions. The pivot men like to go out front or to the corners and improve their ball-handling and cutting from those areas. We feel this drill has helped us tremendously in getting mobility out of all five positions.

Series C







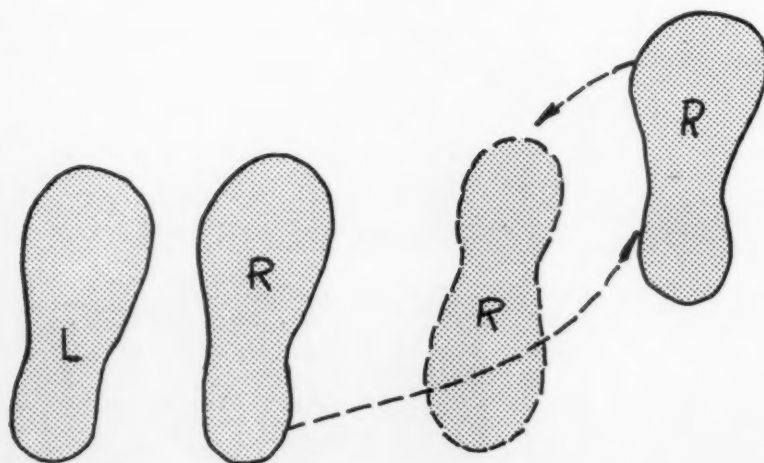
DIAG. 1

Maneuvering for the Jump Shot

By Hershel C. Addisson

Assistant Basketball Coach,

Harlandale High School, San Antonio, Texas



DIAG. 2

AS an offensive weapon, the jump shot has few equals in today's fire-brand type of basketball. The fact that this shot can be executed while a player is driving at top speed, as well as from a stationary position, has led to its adoption by many coaches and subsequently by their players. Increased tempo is not the only new phase in present-day basketball. At the present time players are more point conscious and have little regard for defense. The fast break and the one-hand push shot pioneered the early high scores. Now the jump shot has injected new life into the fast, high-scoring teams.

Like all basic fundamentals, the jump shot should be taught as early as possible. This shot can be taught while the player is in junior high school if the coach will spend as much time on it as he does on the other shots. However, considerable time and patience are necessary in order to teach young players the proper mechanics to be used in getting the shot away.

When he is playing against a good defensive man, an offensive player must be capable of faking and he must consider this factor in getting free on maneuvering for position to shoot.

We will attempt to point out ways of maneuvering prior to taking the shot from a stationary position and from a moving position. The average player will not learn the preliminary faking or maneuvering in his early playing years. He may perfect the jump shot, but if he does not know how to maneuver when he is stopped the shot is not effective. Assuming that the offensive player respects the defensive man's ability to guard him, he will go all-out in his effort to get free for his shot, and in his effort to get free he will develop skill in maneuvering.

Maneuvering From a Stationary Position

These maneuvers may be used by the pivot man as well as by any player who has the ball and is in a stationary position. The first maneuver applies more to the pivot man, but may be used by the forwards or guards who assume a position similar to that of the pivot man. When maneuvering from a stationary position, the pivot man looks over his shoulder at the defensive man, executes a forward pivot away from the defensive man, and gets the shot away as quickly as possible. The foot mechanics of this maneuver are shown in Diagram 1.

If the pivot man is guarded too
(Continued on page 62)

For More Efficient Coaching

A Weekly Time Chart

By Arthur J. Gallon

Department of Physical Education, University of California, Berkeley, Calif.

GOETHE is credited with the saying, "We always have time enough, if we will but use it aright." Many times coaches have complained about the lack of time in which to put across all the ideas they want their players to absorb or the skills they want the boys to perfect. When this complaint is raised at a coaching clinic or in a theory course at school, usually some sort of advice is given concerning planned daily programs with designated amounts of time for each activity. This is good advice not only because it helps insure the covering of desirable activities, but also because it forces the coach to plan his program more carefully. We would like to suggest that the coach go one step further and keep weekly time charts. This practice has proved very valuable to us in our coaching experience and we would like to share it with others.

Our first step in constructing a time chart is to list the important activities we want the players to cover during the year. The attached chart is a copy of a *weekly time chart* which was kept for the freshman basketball team at the University of California. On it are listed the important items which govern the practices throughout the year. Naturally, every coach is going to consider different items desirable and will have his own terminology. Once the list is made up, a chart can be set up as illustrated. Perhaps it should be pointed out that the *weekly time chart* can be readily adapted for any sport.

The actual operation of the chart is comparatively simple. Most coaches are blessed with a student manager or some individual who likes to keep time or records of some sort. This individual can be designated to keep a daily record of the time spent on the various phases of the work. He should be provided with a daily schedule and be familiar enough with the activities to recognize the different phases of the work. The daily record is then transposed on the *weekly time chart* and totaled for the coach at the end of each week.

Quite often one of the activities will be duplicated in another activity, and in each case we indicated it in parenthesis. For example, on Monday 10 minutes work of center on center was duplicated in the two-on-two drill

when a forward and center worked against another forward and center combination.

Then the coach should take the chart and analyze the time spent on
(Continued on page 37)

WEEKLY TIME CHART

University of California Freshman Basketball

Week _____ to _____ 75 min. available daily

Symbols P planned time: S spent time: F forwards: G guards: C centers

	Monday		Tuesday		Wednesday		Thursday		Friday		Total	
	P	S	P	S	P	S	P	S	P	S	P	S
SHOOTING:												
a. Free Throws			10	15	15	10			10	✓	35	25
b. Free Time	10	10					10	10	10		20	80
c. Center Work			(10)	(15)			(10)	(10)			(20)	(25)
d. Drill 1	10	10			15	15	20	20			10	10
e. Drill 2											35	35
PASSING:												
a. Drill 1	5	5							10	5	15	10
b. Drill 2			10	5							10	5
DEVELOPMENTAL DRILLS:												
a. Repeat	5	7	5	5	5	10			10	2	25	27
b. Rotation			10	10							10	10
c. 1 on 1												
F - F			5	10			10	15			15	25
F - G	10	10							10	15	20	25
G - G			(5)	(10)							(5)	(10)
C - C	(10)	(10)	(5)	(10)					(10)	(15)	(25)	(35)
d. 2 on 2												
FF - FF			15	15							15	15
FG - FG									10	10	10	10
GG - GG												
FC - FC	10	10									10	10
GC - GC	10	15									10	15
e. 3 on 3												
FFC - FFC					15	20					15	20
FGC - FGC							10	15			10	15
GGC - GGC												
PATTERN WORK:												
a. Reverse unopposed	15	10							5		15	15
opposed			20	15							20	15
b. Rotation unopposed									5			
opposed							20	15			20	15
c. Diagonal unopposed												
opposed												
SCRIMMAGE:												
a. Half-court									25	20	25	20
Full Court					25	30					25	30
TOTAL TIME	75	75	75	75	75	75	70	75	75		370	375

() Duplication of listed time.

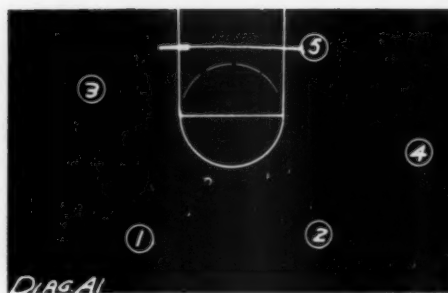
The Zone Under Attack

DURING recent years the zone defense has received a great deal of criticism from both high school and college basketball coaches. We might consider the coaches who have had difficulty in penetrating a zone on certain nights as being the most vociferous in their denunciation of that type of defense. Their resentment may stem from the fact that their plans were upset by some foresighted opponent who detected a lack of ability on the part of certain teams to penetrate a zone. Why should a coach be criticized because he happens to be intelligent?

Screens, set patterns, continuities, and specific plays will not always work against a zone. Any coach who teaches only the type of offense which will work against a man-for-man is selling his team short. If it is prepared, a good team that is relatively well balanced rarely has trouble with any type of defense. Most teams in the country, whether college or high school, will encounter a zone defense some time during the season. Why, then, should a coach criticize a zone defense? His time might better be spent in preparing for it rather than complaining about it.

Before we get into the *meat* of the subject there are a few examples which should prove that most coaches believe in the merit of the zone. A few years ago the professional league banned the use of the zone defense. However, during a professional game the big men under the basket will often stray very far from this area while on defense. Even though their man may move out they will switch to take a man under. Isn't this a type of zone defense?

One of the outstanding coaches in the country, who is a sworn opponent of the zone, used a similar pattern in one of his games. His giant center was playing an excellent defensive game against another outstanding pivot man. The defensive star did such a splendid job on his man that the offensive pivot man had to move to the outside in order to get off a shot. Did the defensive giant move out with him? Certainly not! He did not move past the free throw line and rarely



did he get that far. He allowed his man unhindered shots from outside and played his zone, which was under the basket. This strategy paid off and was considered smart basketball, but he was still playing a zone, pure and simple.

There is nothing more beautiful in a basketball game than watching a good passing team, with even fair outside shooting, work against a zone. Through practice and good coaching this type of play is entirely possible. Within the past few seasons we have seen many high school and college teams work successfully against a zone defense. We believe this is the optimum of teamwork in basketball. Against a man-for-man defense, two or three men may work together to set up a shot, but against a zone all five men must work together in order to beat the defense. Moving the ball in perfect unison, moving it more quickly than the zone can shift, these are the results of good teamwork and good coaching, not complaining.

There are a multitude of zones a team may face. The most common include the 2-1-2, 3-2, 2-3, 1-3-1, 1-2-2, and the 2-2-1. A team that can play a good zone is usually able to shift from one type to another quite effectively. By simply learning slight variations in shifts the players might well use three or even four different zones in the same game.

All zones have weaknesses and each type of zone has its specific weaknesses due to the positioning of the players. Likewise, each zone defense has specific weaknesses due to the players who are using it. We also find that very few zones are taught to

shift alike due to the different philosophies of coaching. In one zone a back man may come up to stop a set shot from the side, while in another similar zone the back man will concentrate on covering the rebound rather than stopping the shot.

For this reason it is a fallacy to contend that one type of offense will function against all zones, or even against the same type of zone set up by different opponents. Therefore, we have never gone through a season with only one offense against a zone. It was our theory that we could not depend on one type of attack, especially if we had been scouted. One variation might work one night and not the next.

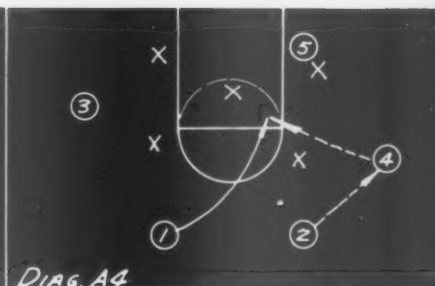
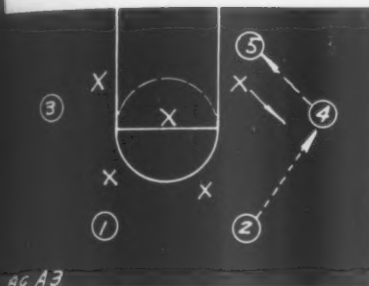
Another reason for having multiple zone offenses was the fact that the opponents might learn our method of attack during the game itself. Another, and probably the most important reason, was the variance in material we might get from year to year. One type of offense might work well with one team but the following year it might be extremely impractical.

We built up our multiple zone attacks over a period of years, introducing them at the junior high school level, then the junior varsity, and then the varsity. When a boy reached the varsity he was able to work into any one of four different offenses against a zone. Obviously, this was no overnight process and no coach should think that his team can master four different types of offenses in a relatively short period of time. In order for a team to be truly effective the coach must have a long-range plan.

We lettered the offensive patterns

By Andrew W. Grieve

Basketball Coach, Sherburne, New York, Central School



A, B, C, and D. Our main reason was that a high school boy, in the heat of a game, might confuse a type of defense with one of our offenses. During the one minute time-out we might wish to introduce a new defense and adjust to a new offense. As an example, if we referred to a 1-3-1, this could be a defense as well as an offense. By lettering the offenses we could eliminate any confusion that might arise.

The A Offense

As shown in Diagram 1A, our A offense is a 2-2-1. It was utilized mainly against the type of defense which left the sideline areas opposite the free throw line open. We found these areas open frequently against the 2-1-2, the 2-3 or the 3-2. Naturally, it would vary with our opponents. Another reason we selected this pattern was due to the type of personnel we had available. Positions No. 1 and No. 2 should be occupied by good outside shots. If these two boys hit for a fair average from outside, the front line must move out to cover them and thus loosen up the defense for our inside attack. If an opponent used a chaser out front, it was difficult for one man to get off long shots. However, with two outside men a chaser will quickly wear himself out. The No. 3 and No. 4 men should be average rebounders and it would be helpful if they could hit fairly well from the open slots. The players who have been most successful for us in these areas used either a two-hand set shot or a one-hand push shot and were at least fair drivers.

The No. 5 man should be the big

man. He will be in on all rebounds and does not move too frequently from the pivot spot underneath the basket. We have used this offense most effectively when we had a big man who did not move too well. In this offense he is not required to do so.

As far as rebounding is concerned, players No. 3, No. 4, and No. 5 follow up after every shot. If either No. 1 or No. 2 drives in for a shot, No. 5 will take the deep position on rebounds. Otherwise, the two outside men decide who will move in and who will remain back for defense.

In Diagrams A2 through A6 the effectiveness of each pattern will be determined by the opponents' shifts. A zone defense will usually leave itself vulnerable in one area or another. The offensive team must determine where these weaknesses are and take advantage of them.

Diagram A2 shows the drive by the No. 4 man around the rear strong-side defender. This drive will be more effective if the No. 4 man can hit even

once from his outside position. Once the No. 4 man begins his drive, the No. 5 man should move to the opposite side of the basket, not only to be in position for the rebound, but to pull the defensive man away from the driver. If a defender moves over to stop the driver, the No. 5 man may be open for a pass from the No. 4 man.

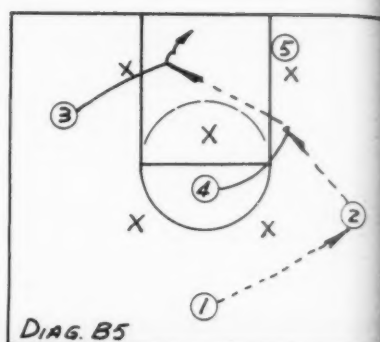
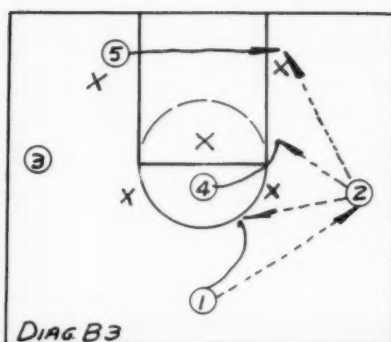
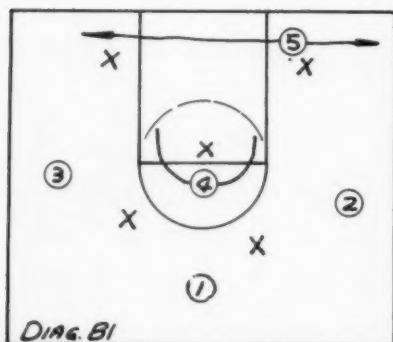
If the defense is slow in shifting back to cover under the basket, the pattern shown in Diagram A3 is often effective. In this case the only requirement is quick passing by the offensive team. Number 2 passes quickly to No. 4, who whips a quick pass to No. 5.

In Diagram A4 we have a companion pattern to go with the one shown in Diagram A3. After being caught on the quick pass to the No. 5 man, some teams will begin to drop back too quickly. To counteract this error the No. 1 man may cut through and receive a pass from the No. 4 man and be in position for a relatively close jump shot.

Oftentimes the front line will check the driving guard and the rear line will check the pivot man. If the guards hold the front line up and the back line concentrates on the underneath area, then the middle area will be open for the opposite forward, No. 3 in this case, to cut across for a pass at the free throw line and an open shot from less than 15 feet out. This play is shown in Diagram A5. A situation of this type will occur frequently against a 2-3, 2-2-1 or a 1-2-2.

If the rear line has a tendency to follow the pivot man, it may be effective to have him move more. Of

AFTER a wartime education which saw him competing at three colleges, Andrew Grieve began coaching in upper New York State at Van Etten. A year ago he moved to Wyalusing, Pennsylvania, and last summer to his present location. Last year he wrote an article entitled, "A Shift to the Zone and the 3-2 Sliding Zone."



course, moving about depends on the type of pivot man that is available. Diagram A6 shows a simple give-and-go pattern which has proven effective against a zone from our A offense. A quick pass from the No. 4 man to the No. 5 man in the corner may cause the defense to overshift on No. 5 and leave No. 4 open for a return pass from No. 5.

Although we have diagrammed all of these patterns from one side, they will work just as effectively from the opposite side.

The B Offense

Our B offense is the common 1-3-1. As shown in Diagram B1, positions No. 1, No. 2, and No. 3 are fairly constant. Player No. 4 moves in an arc, from elbow to elbow, and up to the free throw line. Player No. 5 moves along the end line from corner to corner. The requirements for positions No. 1, No. 2, and No. 3 are similar to those of the comparable positions in the A offense. Player No. 1 should be an excellent passer and ball-handler since he will set up most situations through his passing. Position No. 4 requires a good jump shooter and, if possible, a boy with a reliable hook shot. Position No. 5 is again occupied by the big rebounder and must be fairly mobile as he will move more in this offense than he did in the previous one.

Against certain defenses it will be

possible to pass through the zone to the No. 4 man on the free throw line. As shown in Diagram B2, the No. 4 man may turn for a jump shot or drive-in shot, or feed to either the No. 2 or No. 3 man, both of whom should be cutting for the basket.

There are times when the defense may pull up on No. 4 and leave the underneath area open for a pass to player No. 5.

In the play shown in Diagram B3, player No. 2 receives a pass from player No. 1. The No. 2 man may pass quickly to No. 5 under the basket, to No. 4 who slides down the elbow on his side or back to No. 1 who may cut through. The destination of the pass will be determined by the defensive shift. If the defense drops back to clog up the passing lanes, player No. 2 will be open for a set shot.

An important fact which the three outside men must remember is that any time the No. 1 man moves in, the weak-side offensive man must move out to cover on defense in case of an interception.

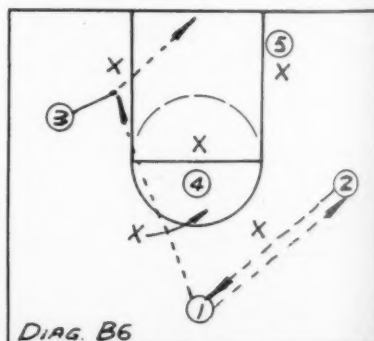
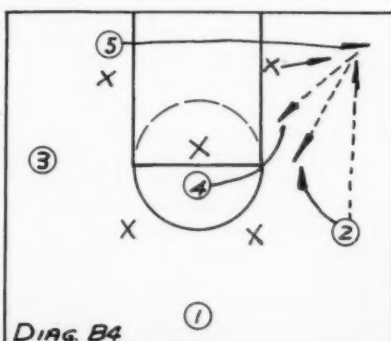
A pattern which we have found effective is similar to the give-and-go used in our A offense. In the B offense, however, the No. 5 man has two options. Immediately after No. 5 receives the pass from No. 2, No. 4 cuts down the near free throw lane line. If the defense has shifted to cover No. 5 in the corner, No. 4 will often be open. Once the defense is

worried about this pattern they will usually cover No. 4, and No. 2 may be open if he will delay his cut until No. 4 has pulled the defense in. A return pass from No. 5 to No. 2 often results in an easy lay-up. This sequence is shown in Diagram B4.

Diagram B5 indicates a maneuver which may be used against a team which overshifts to the strong side. The No. 2 man passes into the No. 4 man, who receives the ball at the elbow. If the defense moves to cover both No. 4 and No. 5, then the weak-side forward, No. 3, should cut for the basket and receive a pass from No. 4. This maneuver will help to keep the defense honest.

One of the most beautiful maneuvers which we have seen worked off this B offense is the setting up of a close shot by rapid passing. Diagram B6 shows this pattern. Player No. 1 passes to No. 2, who passes back quickly to No. 1. During this exchange player No. 3 *cheats* in as far as he can on the weak side. Then No. 1 passes to No. 3 who may set shoot or use a jump shot if he is close enough. Against certain zones, which did not shift quickly enough, we have seen many a player *cheat* all the way to the elbow. The reason we believe a pattern of this kind is effective in this offense is due to the constant danger of allowing positions No. 4 or No. 5 open for a pass and a close shot. With

(Continued on page 58)



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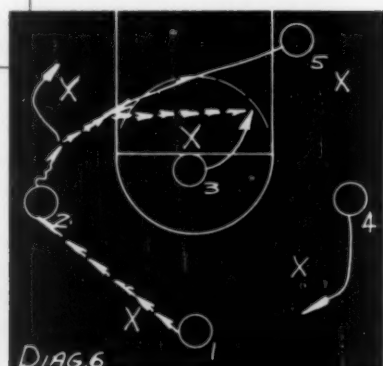
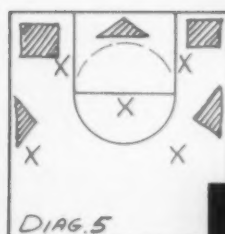
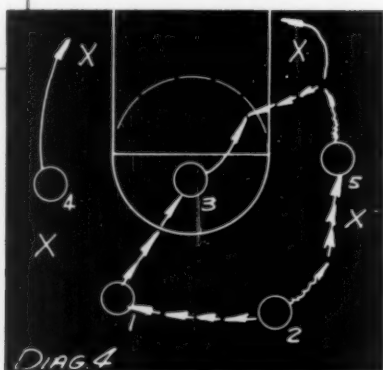
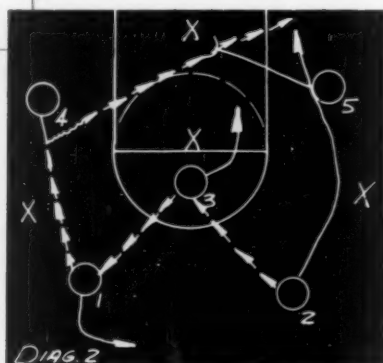
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Breaking the Zone Barrier

By Bobby C. Watson

Basketball Coach,
Crawfordsville, Arkansas, High School

IT has been only a few years over a decade since the words, *zone defense*, brought exasperated feelings to some coaches and many players. With the progression of techniques of coaching and the offensive skills of players that we know today, the zone can no longer be considered a perennial bugaboo. True, it has a definite place in the scheme of defensive basketball and a team must have all of its weapons sharpened for use when facing zone-minded opponents.

So many teams in our section use the various zone defenses that we have had to include several zone offensive patterns in our pre-season plans in order to meet these defensive challenges.

The more common zones which have been used against us are the conventional 2-1-2, 1-3-1, 3-2, and 2-3. Seldom have we been forced to view more than one type of zone in a single contest.

When attacking any zone, certain principles must be considered. In most cases of high school zoning, when a team shifts to one position in order to strengthen a particular portion of the floor, it must create a potential weakness elsewhere. We seek to strike at the weakest point. While the fast break is undoubtedly the most effective means of toppling a zone, against certain teams this type of offensive attack will not be able to function adequately, so we must be prepared to go against the set zone defense.

One basic maneuver which should be used against a zone defense is for the offense to outnumber it. Rapid passing on the part of the attacking team will cause the defense to be outnumbered. Offensive teams must make the defensive players shift their positions in order to find an opening. Our players are instructed to make minimum use of the dribble except in the case of driving toward the goal. Most zones tend to congest the center

(Continued on page 44)



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ATHLETIC JOURNAL

America's First Coaching Magazine

Vol. XXXVII November, 1956 No. 3

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Six, Eight, Eleven-Man Football

LAST month on these pages we tipped our hat to Minnesota for that state's excellent showing in regard to sports participation among its member schools.

We pointed out that practically 60 per cent of Minnesota's high schools played eleven-man football and another 34.7 per cent played six, seven or eight-man football. Interestingly enough, Minnesota's percentage figure on the regular game is only about 10 per cent above the national figure. However, in the other varieties Minnesota runs far above the national average, the national average being only 10.4 per cent for the games employing fewer players.

It has long been our contention that six-man football is an ideal sport for the smaller school. We have, on occasion, chided other publications in our field for neglecting the abbreviated game when it came to the selection of articles.

In addition, we have felt that six-man football served as a convenient entry for those schools that were considering adding eleven-man football to their programs. Through a sampling, as it were, it is possible to determine whether the school and the community will support a football program. The answer may be found at a fraction of the cost of installing the regulation game.

The experience of the 212 Conference in Minnesota is noteworthy in this regard. This conference was formed in 1947 and comprised eight schools situated in communities along Highway 212. At that time the largest enrollment among the eight schools was 140 and the smallest was 70, while the average was 98. During the next two

seasons there was a gradual growth, the average enrollment being 105 the next year and 108 the following year.

In 1950 the league adopted the eight-man variety of football. By that time the enrollment of the largest school was 155 and for the smallest school was 98, while the average enrollment was 112. During the next three years the enrollment for the average school in the conference increased to 119, then 123, and finally 129. This growth prompted the conference to adopt the standard game for the 1954 season. That year the enrollment of the largest school was 197, while there were 95 students enrolled in the smallest school and the average was 134.

Although the average enrollment increased by only 36, these schools were able to participate in football without a great financial outlay for equipment. In addition, by progressing through the six and eight-man varieties they had built up a community backing as well as student interest. Finally, experienced personnel was available to play the game.

Thus, six-man and eight-man football are not only excellent activities for the smaller schools, but they also serve as a gradual means of embarking upon a full program of interscholastic football.

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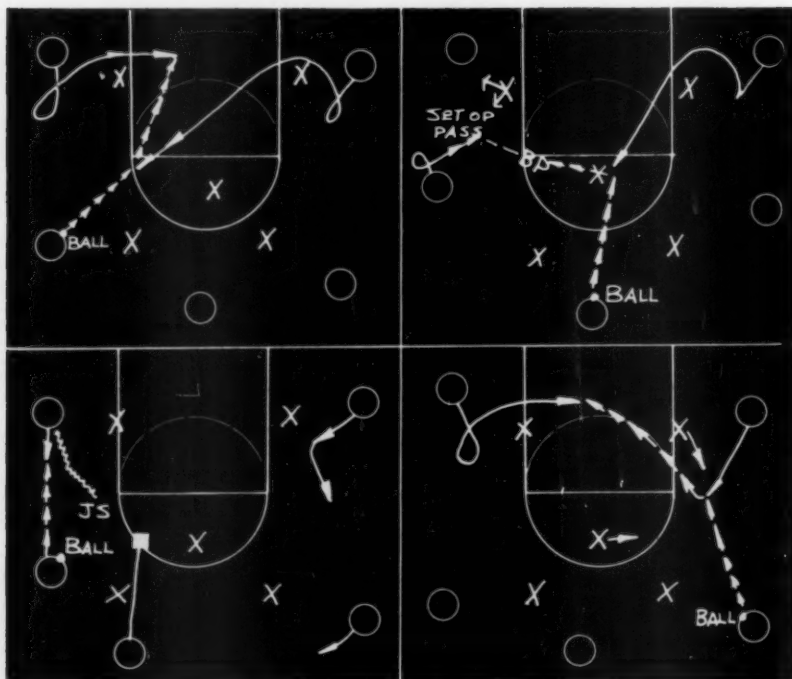
for NOVEMBER, 1956

Coaches Tender Traps Zany Zones

By S. J. Picariello
Long Island University

In the following diagrams the open horse-shoe or around-the-horn attack is used against a 2-1-2 zone. The key word is opposite. One at a time, the cutters use the cutting lanes. Use of bounce passes is important. The players should feint with the ball, but move it rapidly. By using short, fast passes the lanes will open up and one

player, generally the one opposite to the ball will cut towards it. The corner man must know the reverse cut behind the defensive man. At the present time the offensive man in the front court is played in front. The key words — opposite, cutting lanes, and one-man cut should be impressed on the players.



HIGH school and college basketball coaches were the best customers for the manufacturers of aspirin tablets last season, particularly when they had to face zany zones. Whereupon the spectators were subjected to boring, stalling, freezing, do-nothing, stand-around basketball.

The majority of the teams participating in the recent Public Schools, Eastern Regional National Collegiate, and the National Invitation Tournaments, used some type of zone defense at one time or another. The 2-1-2, 2-3, 3-2, 1-3-1, or a combination of the four-man, and the man-for-man defense were used.

Stalling and freezing tactics are nothing new. Each year some team goes into a deep freeze. A few examples of stand-around basketball last season were: In Washington, Zillah defeated Granger, 7-0, score at the half-time 3-0. Hillsboro High School out-stalled Forest Grove by a score of 3 to 1. This boring, dull, and uninteresting type of basketball will force the rule makers to consider seriously the 24-second shooting rule used by the professional teams. On the other hand, the use of zones should not be outlawed simply because the coaches have refused to apply themselves to coaching their teams to undertake the task of breaking up zones. Zones can be broken up and defeated.

However, the coaches are not entirely at fault when we consider the rules that restrain early season practice, the lack of time, and the athletes who are unable to attend practice because of the late scheduling of classes. Coaches realize that their teams are not ready for zones and when confronted with the chore of attacking a zone are at a loss. As a last resource, they fight fire with fire and use a zone themselves.

Despite the fact that there is a decided difference between coaching high school players and college players, both levels have the idea that one easy lesson will be enough to break up a zone. This turns out to be a sad experience.

Mastery in breaking up any defense calls for attention and intention on the part of both the players and the coach. Special consideration must be given to the attacking methods in order to exploit the weakness of any zone. The team must have overall know-how. A 100 per cent effort is basic. One lazy, indifferent player who has a poor attitude will make for an unhealthy situation, defeat.

Against zany zones or man-for-man defenses the attacking team must be

(Continued on page 56)

George Mikan,
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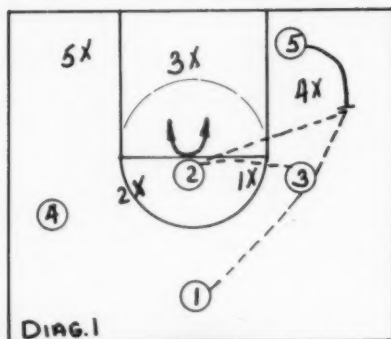


United States Rubber

Rockefeller Center, New York 20, N. Y.

By George P. Whitney

Basketball Coach, Perry, New York, Central School

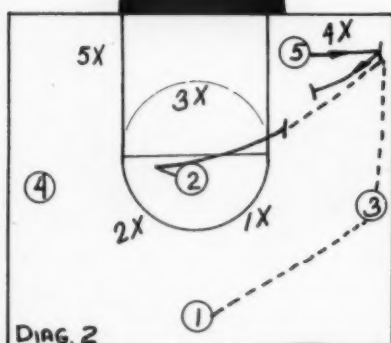


bound advantage that a zone possesses. In a zone attack, when a team lacks outside strength and height, and has one outstanding performer, emphasis should be placed on the middle man.

The description of the middle man fits a coach's dream. This player must be a good ball-handler and rebounder. He must be able to drive both right and left and achieve good

on-one situation. Depending on his ability, the middle man now has several opportunities. He can jump shoot, drive to either side for a lay-up, or shoot after a dribble away from the free throw line position toward the sideline. The middle man must understand that only one dribble is safe, and once he commits himself, he must shoot. Over use of the dribble, or excessive faking enables the zone de-

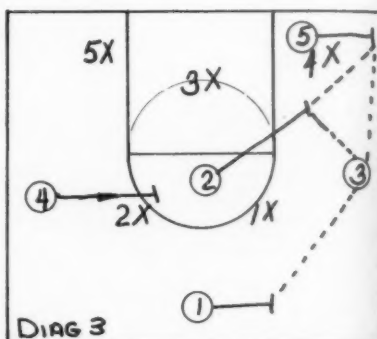
The 1-Man Zone Breaker



distance on one dribble. In order to fulfill his job the middle man must react quickly, be a consistently good shot, and rely mainly on the jump shot. As the focal point of the zone attack, he should be a hungry ball player who is eager to score the good shot.

In the play shown in Diagram 1, 02, who is on the free throw line, receives the ball from 01 and immediately pivots to face the basket. If X3 retreats, 02 jump shoots. If X3 lunges forward, 02 has a one-dribble drive for a lay-up to either the right or left side, providing he has retained his low balance in pivoting. If the ball moves from 05, the deep man, to 03, and then into 02, a one-dribble roll to the opposite side is present. It should be noted that 02 frees himself only after good outside passing by his teammates has loosened up the zone. 02 will be more effective if his teammates are instructed to pass to him only if an opportunity exists.

Through ball movement, the offense has given the middle man a one-



fense to move and cancel his maneuver.

Diagram 2 shows a play in which the middle man works with 05, the deep man, who patrols the base line area. As the offensive team moves to the attack, both 02 and 05 would be to the inside of the zone, to bunch it, and to give the outside men an opportunity to maneuver. 05 moves out to receive a pass from 03. 02, the middle man, hesitates or fakes to the opposite side, then moves to the pass from 05 because the zone shifted to meet the threat of the deep shot. 02 can jump shoot or work for a one-dribble lay-up. Following his one dribble, he can also use the movement of 05 for a screen. Timing is important in this maneuver. If 02 moves too quickly, he moves with the zone, and the zone remains in a position to defend against his action.

In the play shown in Diagram 3, 02 decoys the zone defense into giving 04 a good shooting opportunity. 05 moves into the deep corner, and 02 shifts into the deep pivot position. As the 05, 03, and 02 triangle functions,

(Continued on page 63)

MOST high school basketball coaches dream of having a team that is able to trounce a zone defense consistently. Too often, a coach encounters the zone defense, away from home, on a small court, and against a weaker team. Given a poor shooting night, the wrong side of two or three key calls, and the complexion of the game can change quickly.

Therefore, the coach must expend a maximum of thought and effort in order to capitalize successfully on the limited number of good scoring opportunities that a zone defense will give his team. We want to examine the options available to the middle man in the 1-3-1 attack against a 2-3 zone or a 2-1-2 zone. In using the term, middle man, we refer to the player who is stationed in the free throw line area.

We would like to emphasize the importance of the middle man as a key player in breaking a zone. In occupying the free throw line area he is in a good position to shoot. He is also a threat either to the right or to the left, and his center position gives him the best chance to contest the re-

AFTER graduating from Colgate in 1948, George Whitney began coaching at Perry, New York. He coached junior varsity teams until last year when he became varsity coach. His junior varsity teams won the league title four times and last year's varsity was undefeated in league competition. He also coaches track and his teams have won the county championship for the past six years.

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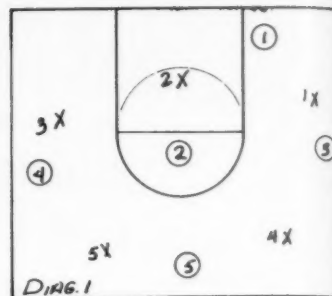
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Screening the Zone



THE attack against zone defenses, which has been employed by a great many teams during the past several seasons, indicates a number of significant changes. These changes have been necessitated by better zone barriers which are a product of more efficient offensive play against the zones used in previous years.

To cope with zone type defenses teams have, in the main, relied on two methods of attack: 1. The fast break, an offense which enabled the attacking team to score before the zone could be set up. 2. Patient passing and maneuvering that usually resulted in pulling the individual members of the zone out of position.

Realizing that these weapons strike this defense at its most vulnerable spot, coaches have made a number of changes in both style and setup, thus presenting the offense once again with a difficult defensive obstacle to beat.

Although there have been changes in zone types and styles, the zone is still entirely dependent on team organization if it is to be effective. Organization is the main requisite in setting up any type of zone defense.

It will be recognized that the two most popular means of attack against all zones, as described, are predicated on either scoring before organization takes place, or scoring at times when the zone has become unorganized.

As a defensive weapon, the zone has enjoyed a resurgence to popularity with the introduction of the 12 foot lane for college as well as high school use. This coming season coaches will employ the zone defense on large as well as smaller floors without the fear of being caught out of position, as opposed to previous seasons when the 6 foot lane on large floors made the various defensive positions within the zone highly vulnerable.

Our offensive attack against the zone is designed to distort the balance

and organization of the defense. To accomplish this objective we use a system of screens against individual players in the zone.

Screening the zone was introduced into the offensive play as a natural outgrowth of our pattern type of attack. The zone, a natural troublemaker for any pattern or set play team, and an outright nemesis to us previously, lent itself amazingly well to screening. Among other advantages, we found permanent screening targets in the zone which do not exist

HOLDING degrees from Concordia College in Nebraska and Michigan, Warren Wilbert has coached in these two states. After five years at Detroit Lutheran he moved to his present location. His team was regional finalist a year ago and this past season won 16 of 21 games before being eliminated by a 1-point loss in the regional semifinals.

against the more fluid, man-for-man type defenses. While there is movement with the ball, the movement is predictable and in specified channels. Knowing where the defense will be and how it will react is an almost unbelievable aid in attacking it. Therefore, we found that we were able to practice each night against man-for-man and zone types of defense without having to change our overall offensive attack too much.

Then too, there is something to be said for the novelty of screening the zone defense. Most of the zones we encountered were not used to being blocked away from the offensive play.

Occasionally, as an added bonus, the defense fouled our screeners in an attempt to regain court position after having blocked away from their zone.

In constructing a screening offense against the zone, several factors were taken into consideration: 1. The zone types. 2. Aggressive and indifferent zones. 3. A 1-3-1 attack.

The Zone Types

We recognize three basic zone arrangements. They include the 3-2, with three men out; the 2-3, with two men out; and the 2-1-2, with a man in the post area. All other types, no matter what their singular alignment may be, have their origin in one of these three basic zones. The one exception that must be considered is the 1-3-1, since our offensive setup is the same. However, against a 1-3-1 zone we consider ourselves to be in a man-for-man situation and will line up opposite each man in the zone accordingly.

Aggressive and Indifferent Zones

The actual mechanics of the type of zone defense against which we play determines our screening patterns. While all zones move with the movement of the ball, some cause considerably more grief than others. For example, we have found that playing against an aggressive 2-3 poses a different kind of problem for us than attacking an indifferent 2-3.

According to our reasoning, screens are set on the assumption that with ball movement men will move to assigned areas, thus enabling us to open up key scoring areas. As a result, we will be able either to move the ball or men through these areas or lanes. However, when the zone does not react as it should, our offense must shift its point of attack accordingly. Therefore, our screens and movements are

(Continued on page 54)

By Warren Wilbert

Athletic Director, Concordia High School, Seward, Nebraska



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Safety and Hygiene in Wrestling

Wrestling is the fastest growing schoolboy sport, and as an aid to those schools who are contemplating the addition of the activity to their program, we have prepared two articles. Last month Mearl Greene of St. Bonaventure College discussed the minimum in the way of facilities and equipment which a school needs to start a wrestling program. The necessary safety and hygiene precautions which should be taken in connection with a wrestling program are discussed in this article.

A PROGRAM of safety and hygiene in wrestling is of paramount importance in any school or college program. Since the welfare and growth of the student are uppermost in the minds of the coaches and administrators, these phases should be thoroughly charted before a varsity or a general physical education program is initiated. There is nothing more unfavorable than to see a boy injured or exposed to frustrating situations when it could have been prevented if the person in charge had taken cognizance of the preparatory factors involved.

The importance of an early inventory on the availability of facilities should be a *must*. Because a school or college has the greater potential for wrestling facilities does not necessarily indicate that it will also possess a superior program of safety. Many schools with improvised areas for wrestling have demonstrated excellent results in hygiene and safety. It is important then, that a complete

survey be made of the possible hazards which may cause injury either physical or mental to a boy before allowing him the use of the facilities or equipment.

Student Congestion On Mat Area

The problem of the number of students that should be allowed on the wrestling area has caused a great deal of discussion among teachers and coaches. Some schools have demonstrated the ability to have a larger number of men participate on the same mat area, while others have not. This is most likely due to several factors — instructors' relations with the students, careful planning, and superior methods and procedures of teaching.

A hazard normally found during a regularly scheduled beginning physical education period, is the allowance for mass participation on a restricted mat area regardless of the number of students in a class, and regardless of the type of skills to be

taught. Advance consideration to lesson planning can often alert the teacher that the order of the day may call for a shift in teaching procedure.

Pre-planning would cause the instructor to be aware of the number of students that can participate adequately during a teaching session demonstrating the various take-downs, escapes, breakdowns, command (non-restrictive) drills; or maneuvering under actual match competition. Too often a beginning instructor is seen directing the same number of students on a small mat area whether he is covering the phases of non-restrictive breakdown drills, or the free resistive take-down maneuvers. Moreover, there should be a thorough understanding that the teaching procedure will further change when the total group is asked to work under actual bout competition. Emphasis on *flexibility in the teaching procedure* during these varying situations will do much toward the promotion of better student safety and mental hygiene practices.

One measure for the prevention of overcrowding on the wrestling area in unusually large classes, is to alternate the use of the mat; some do running, exercise or shadow wrestling, while others receive instructions on the mat. Many instructors, particularly those on the varsity level, have successfully used this staggered workout method when it became essential to do so, because of the lack of space.

Importance of Environmental Hygiene

The area directly adjacent to the wrestling mats has considerable influence on the student's rate of learning and his potential exposure to injury. It is generally accepted that a student is apt to be more receptive to learning new skills when his physical environment is made appealing to him. Consequently, the provision for a healthy, satisfying wrestling area is imperative if the optimum promotion for learning and growth is to become a reality.

Once a definite wrestling motor skill is initiated, the learner must maintain the idea that he has the freedom to complete the initial act without worrying about the unnecessary objects that might cause injury to him. If an action is restricted in any way, so is it possible that the motor skill learning process becomes restricted. Similarly, if the wrestler is distracted unnecessarily because of his unsanitary or unsafe environment, his receptiveness to learning will also become distracted and limited.

Therefore, it is obligatory that pro-

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gram planners who are responsible for the students' growth and welfare make every attempt to provide a teaching station for wrestling that will allow for unrestricted and safe maneuverability. Several items that can help to build this desired type of setting are: 1) place five feet of supplementary safety mats around the entire mat area; 2) pad all joists, radiators or projections near the wrestling area; 3) pad walls to approximately a height of five feet when they are directly adjacent to the mat; 4) remove all loose objects and apparatus that may be found next to the activity area; 5) have the wrestling room well ventilated and lighted; and 6) keep the space in the vicinity of the wrestling area, and the mat itself, clean before and after use.

There is no question that if these hazards are allowed to exist, they will definitely confront the student with negative environmental cues. These unfavorable cues in turn will unmistakably convey to the student nothing more than lack of organization and confusion, and/or lack of interest and preparation for adequate safety and hygiene.

General and Mental Hygiene

The wrestling instructor is concerned primarily with the student's acquisition of a certain amount of technical skills which will allow him to participate at a reasonable level of performance. The instructor must see that the student is made aware of the necessary safety procedures that will guard him from possible physical injury during this process of participation.

However, because of the very nature of the activity, the teacher of wrestling must be cognizant that there are additional bodies of knowledge pertinent to the physical and mental welfare of the student. These bodies of knowledge can be appropriately classified as the *associated learning* and the *concomitant learning* derived from wrestling.

General Hygiene. The many rules of sound practical hygiene associated with the activity of wrestling are oftentimes neglected. It is heard all too often that a boy has eaten improper foods immediately before a vigorous session in wrestling. Similarly, it is not uncommon to see a wrestler's face or body cleaned with the same towel that was used for purposes of expectoration and stopping a nose bleed.

These and similar acts are, when seen or heard of by the school officials and the public, neither conducive to good relations nor public support. More important, the students are not

being exposed to the proper habits of general hygiene.

The supervisor is in a strategic position to help the student acquire a good knowledge of general hygiene that will make participation in wrestling enjoyable and lasting.

Participants should be taught early the various procedures by which they can increase and maintain strength and endurance; foods to be taken during the training period and before a competitive match; care of body bruises and other forms of discomfort; avoidance of dissipation and fatigue; a better understanding of the mechanism of loss of body weight through perspiration and proper diet; and many other rules that make for safe all-around wrestling.

The multiple rules of good body hygiene associated with wrestling are necessary for a successful performance. Coaches often experience the poor performance of a boy who pos-

PRIOR to the war Bob Antonacci was an outstanding wrestler at Indiana University, and during the war he helped organize the physical fitness program at Great Lakes. Following the war he did graduate work at Michigan before joining the physical education staff at Oregon State. Antonacci has been at Wayne for a number of years and recently completed work for his doctor's degree. He is co-author of "Baseball for Young Champions," published last spring by McGraw-Hill.

sessed a good repertoire of technical skills, but who lost to an opponent who had ability because of his neglect of one or more of the hygienic rules. Since the inexperienced participant is apt to rely solely on his technical knowledge, the teacher should inform him of the proper hygienic practices that are associated with an activity such as wrestling.

Mental Hygiene. Participation in wrestling, as in other sports activities, offers the student an opportunity for establishing emotional attitudes and habits of thought that may, or may not, help him resist the onset of personality maladjustments. Although the advancements on the subject of teaching proper attitude responses are not completely understood, much of the student's stable thinking and attitude responses will depend upon how

well the instructor gives attention to the *concomitant learnings* that can be derived from wrestling participation.

On many occasions beginning students are asked during one of their first meetings to perform skills that normally are considered varsity level maneuvers. Similarly, in a body-contact activity such as wrestling, these same students are often found engaging too early in difficult maneuvers that in reality call for a body that is pre-conditioned to absorb body shock.

If a student is exposed to a high level of skill performance before he is mentally and physically conditioned, more often than not he shows signs of withdrawing from the activity, thinking it is beyond his potential. By the same token, this situation can cause the student embarrassment and emotional tensions that are likely to increase awkwardness in performance.

With thoughtful planning of the daily course material from the primary to the more advanced skills, the student will be more receptive to learning the proper attitudes toward the activity, toward his classmates and teammates, toward his instructor and coach, and will be better equipped to meet the many situations that will confront him in life.

Since these acquired teachings have a tendency to operate in later life, and in many instances are more intrinsic than the technical learning, it appears that the instructor is best advised to give serious attention to the total development of the wrestling program.

Technically and hygienically, the adoption of the plastic type mat cover has made wrestling much safer for the increasing number of participants. Likewise, the more recent manufacturing of wrestling mats possessing more than the normal two-inch thickness of shock absorbence is also contributing to safer student participation.

However, along with professional planning for total personality growth, the teacher or coach must continue to give the proper directions to the many uncontrollable variables that exist within the realm of the teaching of human elements.

Although the *how* (method) for teaching a motor activity is important, it appears that the proper amount of attention should be given to the explanation of the *why* (purpose) and the *what* (subject matter content), if these total student learning processes are to be a reality. With the instructors perpetuating a genuine interest in the student's development, a well-conducted wrestling program can offer him experiences that are worthwhile and lasting.

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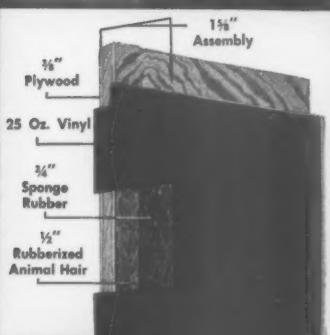
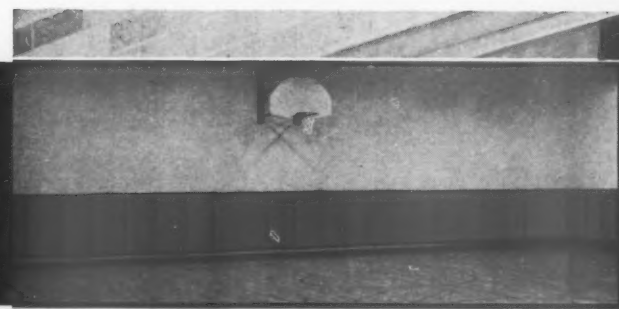
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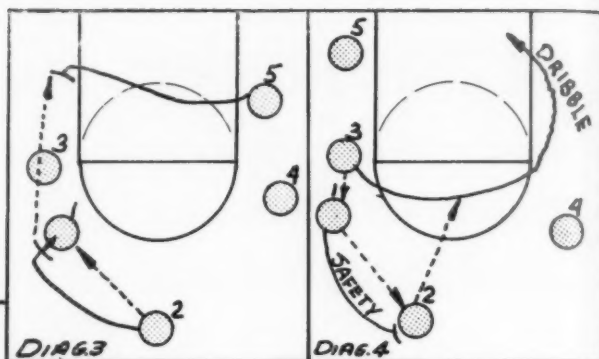
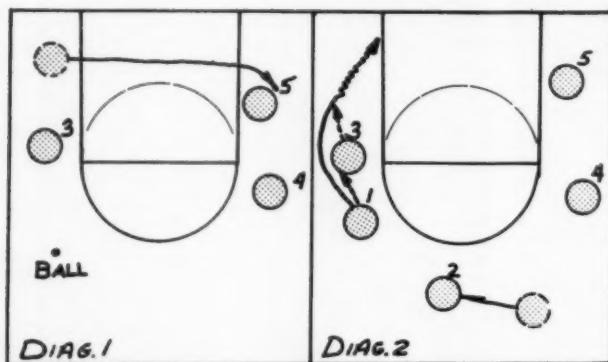


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Last season our players were successful in their use of the pattern we will explain in this article. We had only fifty boys from which to form a squad so we looked for a pattern that was simple and yet had enough variations to give the players limitless scoring opportunities.

Junior high school basketball coaches run into peculiar defenses due to the inexperience of the participants. Many players of this age have been properly coached in defensive tactics, but they will unconsciously perform unpredictable maneuvers which destroy the set plays that many high school coaches have found to be successful with older boys. A junior high school coach cannot rely on a defensive player to react mechanically in all situations. Therefore, we feel that in our particular pattern those unpredicted moves can be combated by variations which the guards are trained to use.

We leave the offensive free throw lane and circle open for cutting. A pivot man is not used as such. Perhaps if it is ever our privilege to coach a boy who is close to six feet, we might use the pivot to advantage, but

in seven years of junior high school coaching we have not had a boy that tall. Therefore, ball control is stressed in our offensive attack.

At the start, two forwards are placed even with the offensive free throw line and about three feet from the outer edge of the free throw circle. We learned a valuable lesson about four years ago when our forwards were placed too deep. As a result, many passes were intercepted and the players failed to get the ball into scoring position. By moving the forwards out to the free throw line, and teaching them to move towards the ball by stepping first with the inside foot and receiving the ball between the outside knee and hip, the problem of getting the ball into position to start the pattern was solved.

Our center, 05, moves back and forth along the base line. When he sees the ball come into one of the forwards, he moves away from it towards the opposite outside free throw lane (Diagram 1). This movement pulls the defensive man who is guarding 05 over so that we can go in on our first option.

First Option. 01 hits 03 with a bounce pass to the outside. Then 02 moves over for floor balance and becomes the initial safety man. 04 moves about one step toward the sideline on his side of the court. This movement further opens the center

lane for cutting. Then 01 cuts to the outside of 03. At this moment 01 must decide whether he is going on through on the guard-around. If the way is clear, he should go (Diagram 2). At any rate, he will receive a short flip pass or possibly a hand-off from 03.

Second Option. If the way is blocked by a defensive man, 01 is instructed to shoot over the screen which was set by 03. We tell 03 that he must hold his screen for one count after he passes or hands off regardless of what 01 does.

Third Option. If 01 does not find an opportunity to drive and cannot, for some reason, shoot over the screen, he has another possible pass before he must return pass to the other guard, 02. Since 05 has gone away from the play and notices that the guard-around and the shot over the screen have failed to materialize, he can come back to the play. 01 hits 05 with a bounce pass, and 05 is instructed to fake immediately and hook at the basket. We tell 05 whenever he receives the ball he is expected to shoot (Diagram 3).

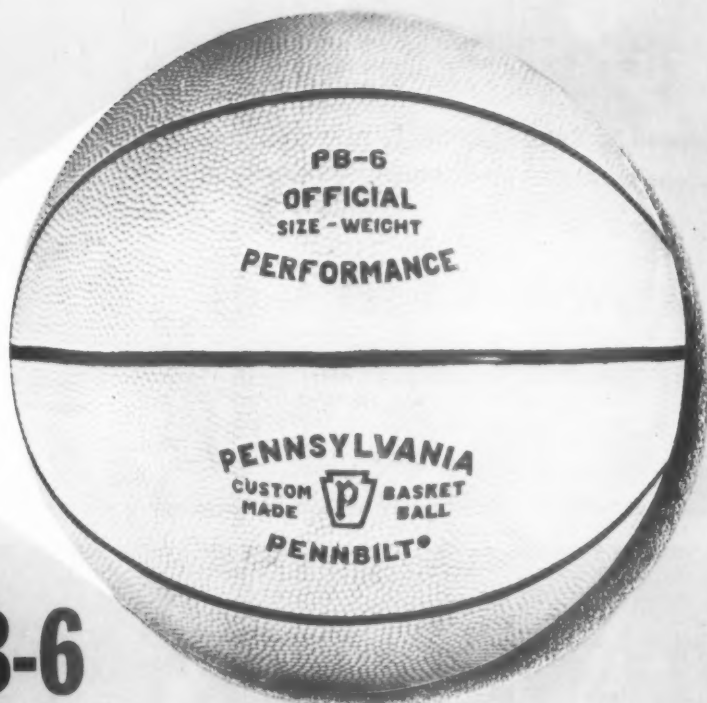
Fourth Option. Should 01 find that a defensive man has slid through and the pass to 05 is impossible, he passes out quickly to the other guard, 02. After 03 has held his screen for one count, he releases and breaks to the top of the offensive free throw circle. Then 02 passes to 03. If 02 feels that 03 is in position to continue to drive on around for the shot, he will signal (Continued on page 48)

By James A. Tansey
Basketball Coach, Beiger Junior High School, Mishawaka, Indiana

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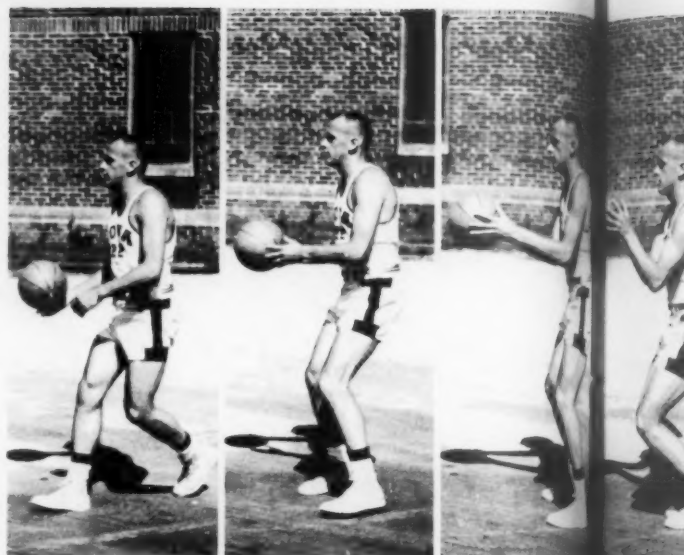
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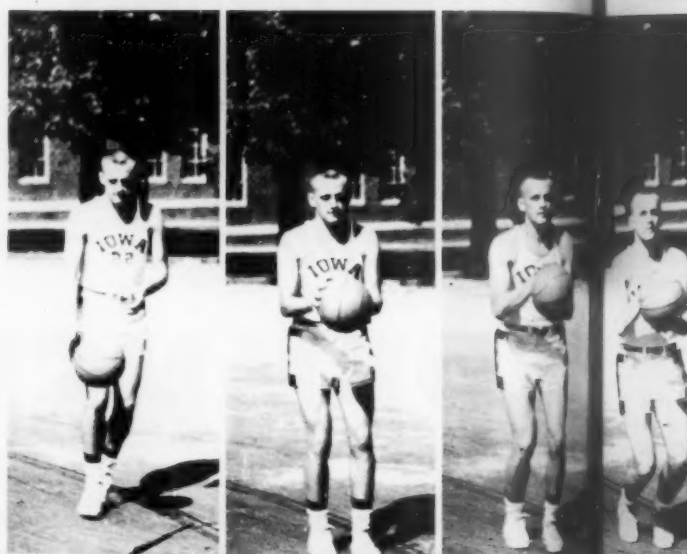
TWO-HAND SET SHOT

In executing the two-hand set shot the shooter's feet should be together, his knees flexed, weight on the balls of his feet, and his hands fairly well back of the center of the ball. He should have good extension of his arms toward the basket on the follow-through.



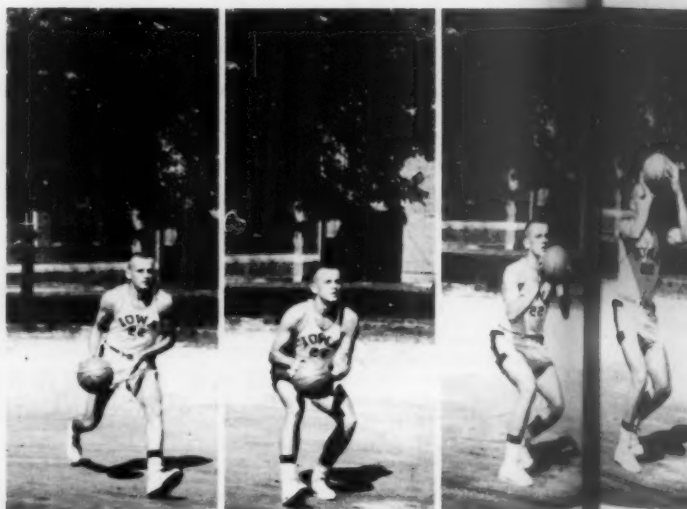
ONE-HAND PUSH OR SET SHOT

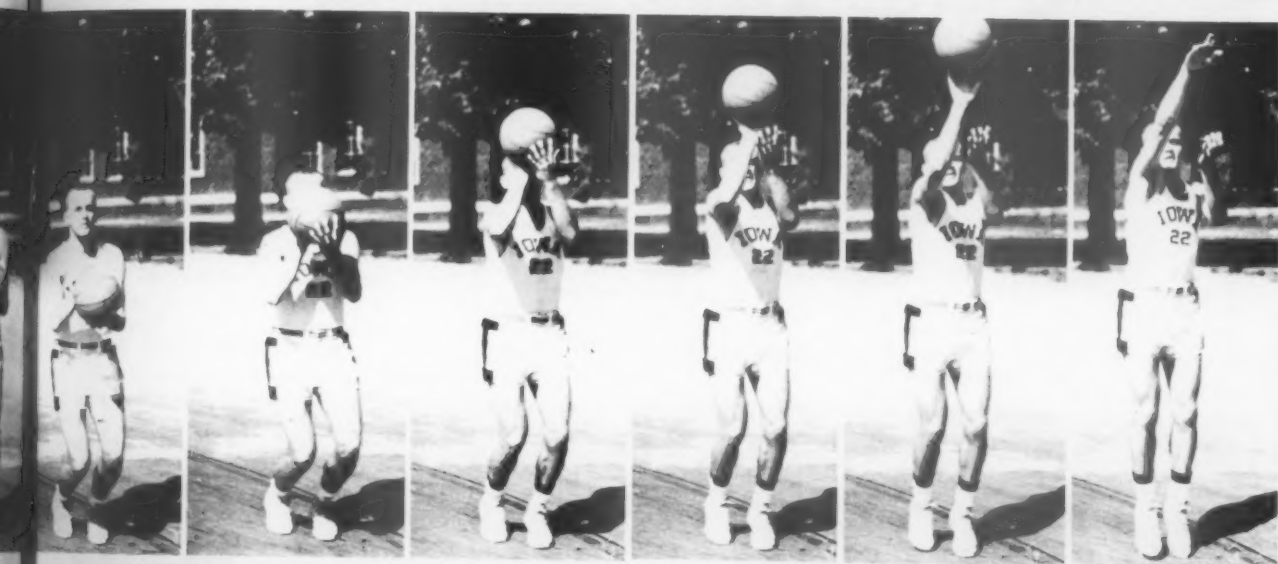
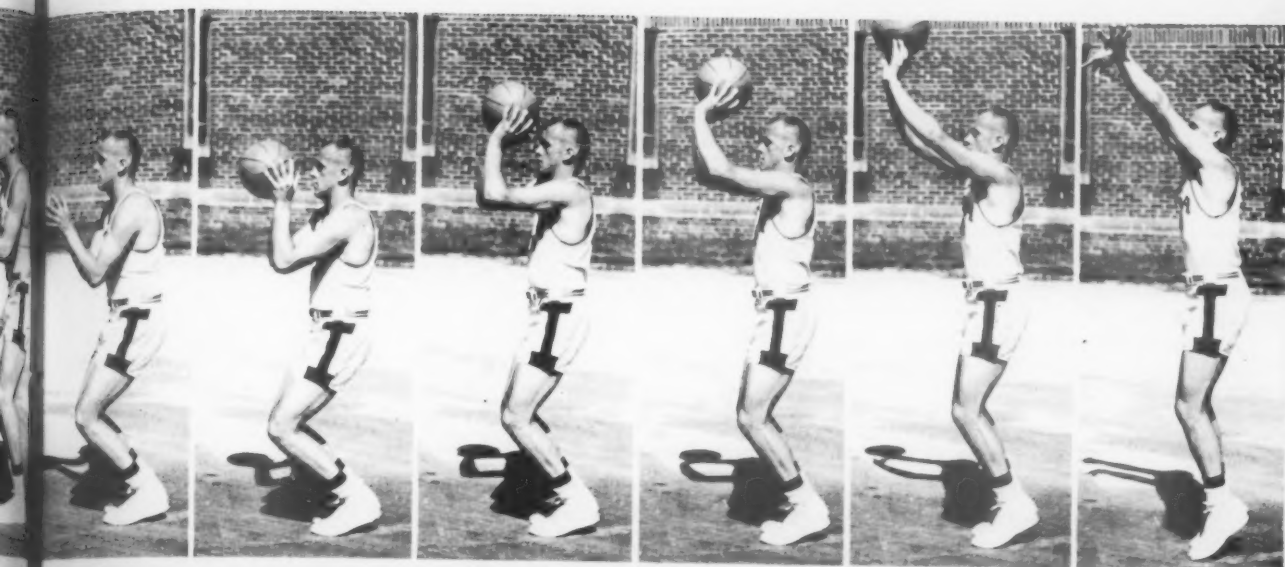
For this shot the shooter's right foot should be slightly behind his left foot, with his knees flexed. His right hand should be on the center of the ball, with his left hand remaining under the ball as long as possible. Again, he should have good extension of his shooting arm toward the basket.



ONE-HAND JUMP SHOT


A shooter comes to a running stop. His right foot should be slightly ahead, with his weight slightly forward. His knees should be well flexed in a jumping position. As he jumps, he will try to get as much height as possible with full extension of his arms in order to release the ball as high as possible over his head. The shooter should remember to keep his left hand in contact with the ball as long as possible as he pushes the ball forward with good extension of his right hand. He should use a good follow-through, with the palm of his hand going down and out.






FOR YOUR BULLETIN BOARD

This feature is arranged so that it may be easily removed from your copy of the Athletic Journal without damaging the magazine. Simply open up the two staples on the preceding page, lift out the form, and then fold back the staples. The first feature of this current series appeared last month and was on the Dribble in Basketball. There will be three more of these features during this school year. Additional copies of this insert are available, free of charge.




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Weekly Time Chart

(Continued from page 13)

the various activities during the week. Many times, in our enthusiasm, when a particular drill is going well, we have a tendency to stay with the activity longer than planned. Undoubtedly, certain activities will require more time than others during the different phases of individual and team development. With these *weekly time charts*, the coach can plan the work ahead and keep a check on what has been accomplished.

A file of the charts can be kept for the year and an analysis of the time spent can be made at the conclusion of the season. With this analysis, a coach can perhaps see where he fell short in his planning and use this information to help him do a better job during the next season.

One of the important things to remember regarding any plan is that it should be flexible. Most experienced coaches or instructors will caution against attempting to hold to a plan without any deviation. It is up to the coach to use his judgment regarding when to use more time and when to eliminate certain things. The primary purpose of the *weekly time chart* should be to serve as a record of what has been accomplished and this information should be used as a guidepost to help plan the future work.

Bonaparte passed along some valuable advice to a school of young men when he said, "Improve your opportunities—every hour lost now is a chance of future misfortune." This advice certainly should be taken to heart by every coach who has a limited amount of time for practice. An hour misspent in practice might cost the team a victory at a later date.

ARTHUR J. GALLON competed at Willamette University, graduating in 1939. The next year he went to Hawaii as football, basketball, and track coach at Kamehameha Boys' School. In 1947 he became head basketball coach at the University of Hawaii, a position he relinquished in 1951 in order to study for his doctor's degree. He served as assistant to both Nibs Price and Pete Newell at California and in August accepted a permanent position in the physical education department.

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The Ronald Press Company list in the field of sports, recreation, and physical education, now numbers more than 150 titles. These titles, which include all volumes of the Barnes Sports Library, cover 21 individual and team sports, and a wide variety of indoor and outdoor activities—as well as textbooks for every phase of the health and physical education curriculum. A complete price list is available, and will be sent on request.

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NOT all of the coach's problems are confined to the practice field, nor do his greatest problems occur on the day of a game. His largest headaches often come about through the handling of the dozens of items which must be issued to athletes during the school year. Issuing of equipment is a particularly big problem during the football season, when so much more equipment is necessary than is needed for most other sports. This equipment includes not only the durable items such as shoulder pads and practice pants, but also takes in such things as T-shirts, towels, socks, and athletic supporters.

Many high schools, preparatory schools, and small colleges make an effort to furnish their athletes with clean equipment, but the school budgets do not always extend far enough to include the hiring of an equipment man for the athletic department. Therefore, the job of taking in dirty towels and other items, having them washed, and returning them to the players usually falls to the coaches and student managers. Those coaches who have developed a good system for handling the issuing of equipment have saved themselves many vital minutes which can be added to their time on the practice field.

Athletic Director, C. G. Thomas of Fork Union Military Academy, who is blessed with a good gymnasium and dressing space, but no equipment man, found a system which has worked most successfully. The school furnishes its athletes with socks, T-shirts, supporters, towels, and the like, and insists that the players change into clean articles two or three times a week. Naturally, for a football squad comprising 33 boys, a great deal of handling and exchanging is required, and unless care is taken, there is likely to be a reasonably large loss of equipment. Thus, the numbering of equipment is important, and it is equally important that the players realize they are responsible for everything issued to them.

At Fork Union Military Academy, the issuing of all equipment for the entire football season is virtually completed during the first two or three days of practice. As soon as it becomes apparent that a boy will make the varsity squad, he is assigned a definite place in the dressing room. Several specific hooks for hanging equipment are assigned to the player, and the area along the wall is marked with the player's name and a number. Let us assume that Smith is assigned dressing space 12 in the dressing room. He is then assigned a shelf-like box, also No. 12, in the equipment room, which

also serves as the coaches' dressing room. This room adjoins the players' dressing room. The No. 12 will remain with Smith throughout the season, and all exchangeable equipment which he receives will bear that number.

After Smith has been issued his pads, shoes, pants, and jersey he receives a season's supply of washable items. If Smith wears size 10 socks, he will be handed three pairs of socks in that size, and an assistant coach or manager will use an indelible marking pencil to place a 12 on each of Smith's socks. Because there is the possibility that the marking may wear

necessary for the athletic director to provide additional socks in mid-season. For a squad of 33 boys, exactly 99 pairs of socks will be needed, and with each boy receiving his numbered socks at the beginning of the season, there is no reason for the socks to disappear during the exchange of equipment, as so often happens. When the season is completed, many of the same socks may carry over into basketball, since many secondary schools have the same boys playing on the football and basketball teams. If the football coach wishes to start off the next season with a completely new stock of socks, his previous year's supply can

Solving a big problem

The Issuing of Equipment

By E. H. Lacy, Jr.

Assistant Athletic Director, Fork Union Military Academy

off when the sock rubs between the foot and the shoe, the sock is not marked on the foot area. Instead, a square of name tape, one inch by one inch, is sewed into the inside top of each sock, and the player's number is placed on that name tape in each sock. Now the player has three pairs of socks in his size, which will be his throughout the season, and in normal cases it has been found that three pairs will carry the player through a football season. When the player goes on the field for the first time, he wears one pair of the socks, and places the other two pairs in his No. 12 equipment box until they are needed.

Under this system it should not be

be handed down to the junior varsity.

The same procedure is followed for T-shirts. If player Smith wears a medium shirt, he is furnished three shirts, and each one is marked with the number 12. He starts the season by placing his two extra shirts in his No. 12 equipment box.

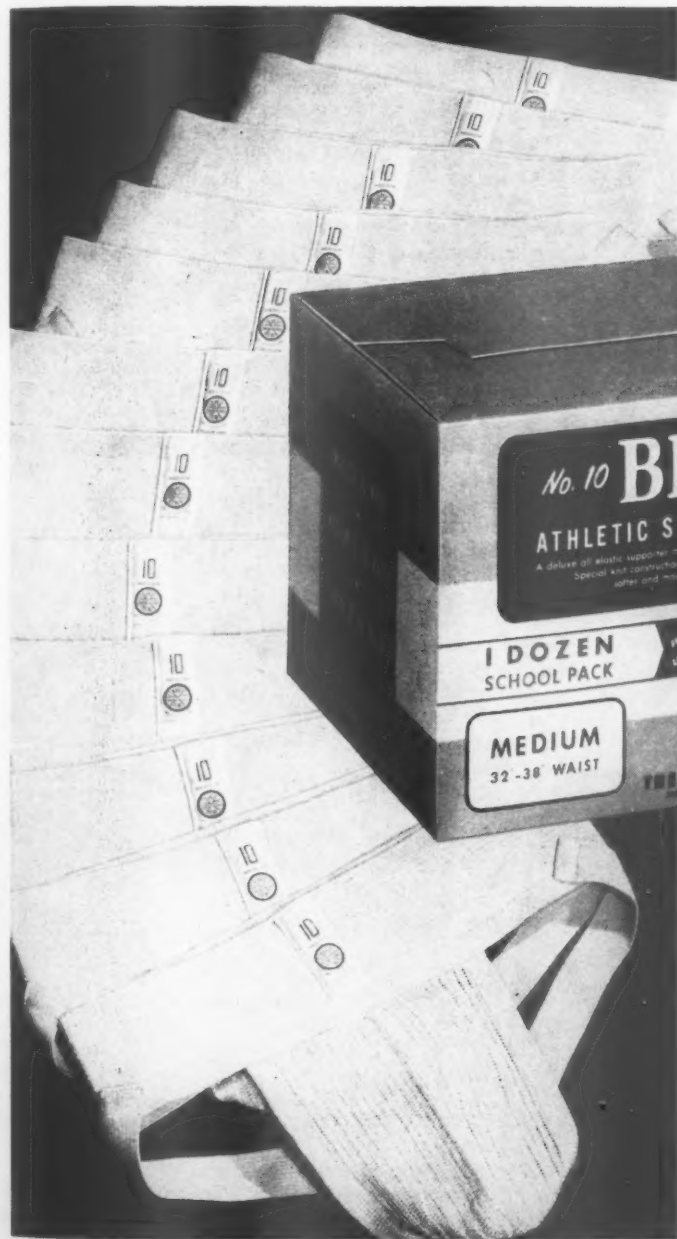
Each equipment box also contains three towels, numbered to correspond with the box number and the number of the player's dressing area in the dressing room. Supporters may be issued in the same manner.

This kind of a numbering system cuts down on the time and managerial help needed to make an exchange of

(Continued on page 46)

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SUCCESS in athletics comes only as a result of an intense urge on the part of the athlete to be successful. In order to achieve his goal the individual must go through many hard sessions of conditioning and training, through periods of disappointment and discouragement, through temporary misfortunes, and tempting distractions.

Present-day coaching and teaching methods are as different as the coaches who use them. Yet all methods reflect in some degree the educational philosophy of the coach involved and, above all, conditioning assumes paramount importance for the coach, and most certainly for the competitor.

It is important to understand what is meant by the term *conditioning*. It is an attempt on the part of the coach to get his fencers into superior phys-

gences as smoking, drinking, lack of sleep, diet, and the use of vitamins as problems which most certainly require self-discipline if a fencer is to attain his highest potential functional level.

Regarding motor fitness, the coach should recognize the following areas of emphasis: (1. endurance, (2. power, (3. strength, (4. ability, (5. flexibility, and (6. balance. In fencing, the fundamentals which emphasize the characteristics of motor fitness should be stressed until the capacity for efficient performance in the sport is attained. To develop these physical characteristics individuals must participate primarily in the sport in which they are to compete. When training for fencing the student must fence and keep on fencing. However, fencers can accelerate the develop-

MAC GARRET captained the City College fencing team in 1938 and 1939 and then coached at Townsend Harris High School in New York. In 1940 he became fencing coach at Illinois and in 1942 his team won a conference championship. Following four years in the air force, he returned to Illinois and since then Illinois has been one of the powerhouses in the collegiate fencing world.

momentum.

1. *Leg Lifts:* This exercise strengthens the abdominal and back muscles and is fine for trunk flexibility. It can be used as a partner exercise.

Fitness for Fencing

By Maxwell R. Garret

Fencing Coach, University of Illinois

ical, mental, and motor fitness. In so doing, the individual can then become the essence of *action*. He becomes a reservoir of power and contains a spirit of invincibility.

A coach who seeks good physical fitness for his fencers must recognize the complexity of this fitness. It includes problems pertaining to: (1. normal weight; (2. nervous stability; (3. good circulatory-respiratory condition; (4. immunity to disease; (5. a high energy level; (6. normal senses which include sight, hearing, taste, feeling, and smelling; and (7. general good health. Periodic physical examinations, including a dental checkup, may uncover defects or deficiencies in their early stages which should be corrected before they advance too far.

Mental fitness is primarily a question of self-discipline. An individual who is in training must realize and develop self-denial wherein he may have to deprive himself of pleasant indulgences which might appear more worthy at the moment but do not contribute to his ultimate objective — total fitness for fencing. Stanley Sieja lists some of these pleasant indul-

ment or preparation of their bodies through other activities such as *conditioning exercises, proper relaxation, rest, a sufficient amount of sleep, and balanced and regular meals*. Through experience most fencers are able to determine what their individual needs are regarding rest, sleep, and food. But there are only a few individuals who have achieved top condition for fencing through a wise and comprehensive conditioning program. A program of rhythmic endurance exercises can be worked out for home, salle, or gymnasium use which, if used properly, will strengthen the circulation, help normalize the blood pressure, and maintain muscle tone.

The following exercises are recommended for all fencers since they have been selected specifically for conditioning those parts of the body related to the sport. It is best for a potential fencer to try to do all of the exercises, but if lack of time is a factor to be considered, he should select the exercises and the sequences that will best fit his needs and do them religiously. The exercises, 1 through 6 inclusive, are to be executed without swing or

Starting Position: The partners are back-to-back with their arms interlocked. One partner bends forward until the other partner has his toes off the floor.

Exercise: 1. Lift the legs to a horizontal position. 2. Return to the original position. 3. Repeat.

Amount of Time: Thirty seconds to one minute, according to individual tolerance.

2. *Sit-Ups:* This exercise is excellent for strengthening the abdominal muscles and can be used with a partner.

Starting Position: The student should assume a lying position with his knees bent and his hands clasped behind his head. The individual who is not exercising holds his partner's ankles and keeps his legs from rising off the floor.

Exercise: 1. Sit up and touch the knees with the elbows. 2. Return to the original position. 3. Repeat.

Amount of Time: Thirty seconds to one minute, according to individual tolerance.

3. *Leg Extensions:* This exercise strengthens the abdominal and back

Cyclo-Massage Speeds Healing of Bruises, Sprains, Charley Horses

Sports College's Lloyd Percival Finds Injury Time Reduced With Use of Cyclotherapy® Equipment

Much has been said of the Cyclo-Massage devices (Cyclotherapy) being used in the United States by an ever-growing group of athletic trainers, coaches and professional athletes.

After having read several very favorable reports of this equipment from such eminent athletic trainers as Howard Waite of the Pittsburgh Panthers and Dr. Harrison Weaver of the St. Louis Cardinals, Director Lloyd Percival of the Sports College, Toronto, undertook his own research program.

Highlights of Director Percival's report, "Effectiveness of Cyclotherapy on Athletes," are as follows:

"We have found that contact bruise injuries of all types (especially the well-known Charley Horse) react very favorably to the use of Cyclotherapy. In many cases

we found that the use of this equipment cut down the time of recovery—sometimes as much as 50%. There appears to be no doubt that Cyclotherapy stimulates the circulation very effectively and thus aids the normal healing processes.

"In using the equipment in the treatment of 'Shin Splints,' a notoriously difficult condition to cure, we can report exceptionally good results. So far in our experience we have not used a technique that has such quick-acting results.

"In the treatment of strains and sprains we have found that the use of Cyclotherapy does a great deal to hasten the healing process. It was particularly noticeable that the muscle spasms and tension usually associated with these injuries were relaxed very quickly by the use of this equipment."

RELIEVES TENSION, FATIGUE

Aside from its healing benefits, Director Percival found that Cyclotherapy had an excellent relaxing effect on men who were extremely susceptible to pre-game nervous and muscular tension.

The equipment proved extremely valuable, also, as a sleep-inducing agent for tense, apprehensive athletes, and as an aid in the recovery from fatigue due to muscular activity.

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Cyclotherapy equipment is available in various styles of training room tables. In addition, small units are offered that can be carried with the team. These portable models are so light and compact, in fact, that they can be kept right at the bench for immediate use in case of injury.

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Cyclotherapy can be applied by the injured person, himself, with but a small amount of supervision by the trainer. This, obviously, permits the harassed trainer to handle many, many more cases than heretofore.

Furthermore, as Trainer Howard Waite of the Pittsburgh Panthers points out, the Niagara Hand Unit, when substituted for hand manipulation, takes the labor out of the rubdown.

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Full details on Cyclotherapy equipment, including catalog and prices, are available. Simply write to Cyclotherapy, Inc., Dept. AJ-116, 11 East 68th St., New York 21, N.Y.



The Pittsburgh Panthers' progressive trainer, Howard Waite substitutes Cyclotherapy for hand manipulation in giving his athletes rubdowns, as demonstrated here on tackle Eldred Kraemer (now a professional football star).



The late Dr. Harrison Weaver, (St. Louis Cardinals) used Cyclotherapy in the treatment of certain painful, incapacitating injuries.



Use of the portable Cyclotherapy cushion on ankle injury is here demonstrated by Trainer Howard Waite and ex-Pitt tackle Eldred Kraemer.

muscles and is excellent for trunk flexibility.

Starting Position: The student should be in a prone position (face forward) on the floor or on a table.

Exercise: 1. Lift the legs up as high off the ground as possible. 2. Return to the original position. 3. Repeat.

Amount of Time: Thirty seconds to one minute, according to individual tolerance.

4. **Trunk Extensions:** This exercise strengthens the abdominal, back, and upper leg muscles, is excellent for trunk flexibility, and may be used with a partner.

Starting Position: The individual who is not exercising will hold his partner's thighs while he is in a forward trunk bent position. The individual who will exercise is in a horizontal position on a table, with his trunk extended over the edge of the table. His hands are behind his head.

Exercise: 1. Lower the trunk forward as far as possible. 2. Return to the original position. 3. Repeat.

Amount of Time: Thirty seconds to one minute, according to individual tolerance.

5. **Toe Flexor:** This exercise is excellent for developing ankle strength and should be done four or five times.

6. **Inverted Knee Bends:** This exercise is excellent for developing leg strength and for the abdomen.

Exercise: If an apparatus is not available, a partner may be used. The individual who is exercising should lie on his back and place the soles of his feet on his partner's chest or abdomen. The partner, while standing, leans on the exerciser's feet. The exerciser should flex his legs and then push his partner back to an upright position.

Amount of Time: Thirty seconds to one minute, according to individual tolerance.

7. **Jumping Jack:** This exercise strengthens the muscles of the thighs, calves, and feet.

Starting Position: Standing, feet apart, arms overhead.

Exercise: 1. Jump to a squat, hands on hips. Exhale. 2. Return to the original position. Inhale. 3. Repeat.

Amount of Time: Thirty seconds to one minute, according to individual tolerance.

8. **Reverse Push-Ups:** This exercise strengthens the upper and forearm muscles, and it is an excellent test for arm strength endurance.

Starting Position: Back leaning rest position.

Exercise: 1. Lower the body to the floor. 2. Return to the original position. 3. Repeat.

Amount of Time: Thirty seconds

to one minute, according to individual tolerance.

9. **Half-Mile Run:** This exercise is excellent for developing endurance and for all-round body development.

Exercise: This run is to be performed against time. The individual should start slowly and gradually increase the distance until he achieves the half-mile. He should pace himself, always trying to reduce his time for the run.

10. **Rope Skipping:** This exercise is excellent for developing endurance and for hand-foot coordination.

Exercise: Skip by hopping on both feet simultaneously.

Amount of Time: Thirty seconds to four minutes, according to individual tolerance.

11. **Lunging:** Exercise: Practice lunging on a line for balance and use a heavier than normal weapon.

Number of Times: Gradually increase until 200 good lunges are executed daily.

12. **Ankle Rotation:** This exercise is excellent for developing ankle strength.

Exercise: Rotate each ankle outward and inward.

Amount of Time: Thirty seconds to one minute, according to individual tolerance.

13. **Bicycling:** This exercise is excellent for developing endurance and leg strength.

Amount of Time: Fifteen minutes each day.

"The good athlete nowadays seems to be the boy who is in some sport

most of the year. He may stick to the same sport or he may change sports with the seasons. Usually the champion athletes are those who not only work at sports most of the months of the year, but also have worked many years in succession. It might almost be said that a champion is one who has worked so long and so continuously at sports that he has grown and matured into a champion. The growth and maturity imply a high level of physical development, a great keenness of mental maturity, and a degree of self-drive, and emotional control that mark him as superior. He has the muscular and organic development, the skills, the techniques and strategy, and the control and drive that keep him centered on his objective and extract the utmost of his energies for its attainment.

"The mature champion knows how to take care of himself. He loves to win but he gets in shape instead of worrying. He knows how to relax. He takes his time in the dressing room, warms up slowly and completely. He cools off slowly after a contest. He does not let overexcitement fatigue him and decrease his efficiency. In early season, he gets very tired but he does not confuse such fatigue with staleness. He goes home after his practice, 'sleeps the clock around,' and reports in better shape the next day. He needs no coach to teach him the value of 'bunk fatigue.'"¹

¹Lawther, John D., *Psychology of Coaching*, Prentice-Hall, Inc., New York, 1951.

New Books

The Dictionary of Poisons, by Ibert and Eleanor Mellan. Published by Philosophical Library, Inc., 150 E. 40th St., New York 16, N. Y. Price \$4.75.

This volume is recommended to everyone who may be called upon at sometime to render first aid to a victim of poison. The book fills a great need, for the material is presented in a clear and precise form and in language which everyone can understand.

In the beginning a brief history of poisons is presented. Then the authors discuss emergency treatment,

the removal of ingested poisons, the method of preparing antidotes, and a listing of demulcents, cathartics, and stimulants. Each type of poisoning is described, its nature, occurrence, symptoms, antidotes, and first aid treatment.

Sleep, by Dr. Marie Carmichael Stopes. Published by Philosophical Library, Inc., 15 E. 40th St., New York 16, N. Y. Price \$3.00.

In this book Dr. Marie Stopes contributes many useful and new facts regarding sleep, which should be of interest to everybody.



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(NUMBER)

We do _____, do not _____ offer table tennis all year.
(CHECK ONE)

Table Tennis is part of our athletic _____, recreation _____
(CHECK ONE)

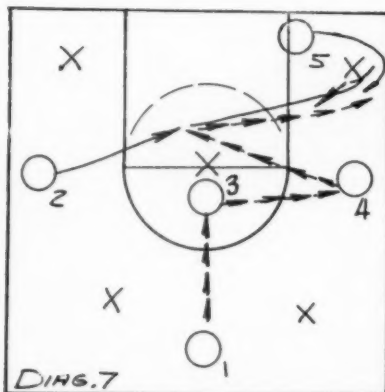
There are approximately _____ in our school or organization.
(NUMBER)

Breaking the Zone Barrier

(Continued from page 18)

area of their defensive end of the court in order to prevent short shots from being taken, thereby leaving

all zones are admittedly vulnerable in the free throw area and on the sides of the court.



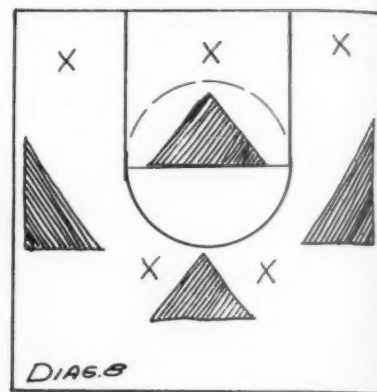
long and medium-long areas open to be exploited. A team that is pressing the attack against the shifting zone must attempt to split or spread the defensive players from the compact mass in front of the basket. Nearly

We have found that after a pass, an offensive player should move away from the direction of his pass rather than follow it as he would in man-for-man attacks. This maneuver is used to prevent one defensive player from blanketing two offensive men at the same time. Contrary to some beliefs, an individual player can be blocked or screened effectively in most zones. After the shot has been taken, at least three offensive players should obtain proper rebound positions in order to put pressure on the defensive rebounders and to come up with that all-important second shot. Another important principle is for a team to maintain instant defensive balance unless it wishes to see the zone defense suddenly erupt into a fast-breaking scoring thrust after a quick backboard recovery.

With excellent long shot specialists, there should be little need for pene-

trative tactics against a zone, but in most small schools, such as ours, that type of specialist seldom comes along. We must penetrate, if possible, and hope our average on long shot attempts is potent enough to keep the defense honest.

Although several patterns which we have used are outlined in the dia-



grams, they show only some of the plausible scoring opportunities that may be present off the various formations.

2-1-2 Attack Against the 1-3-1



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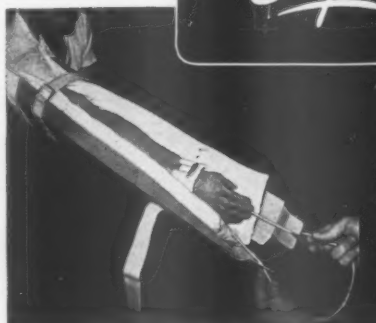


Not in this Case . . . the Trainer Applied the

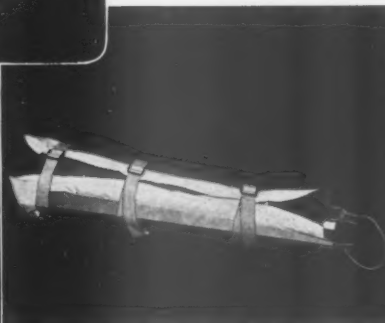
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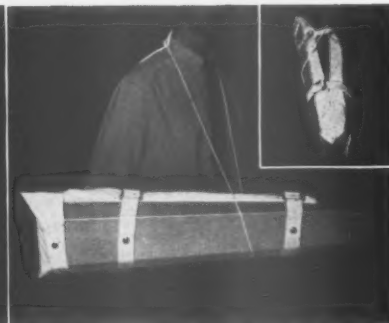
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When confronted with the 1-3-1 zone we use a 2-1-2 attack formation. The weakest points of this particular zone are found on the sides of the court and in front of the free throw circle, as shown in Diagram 1. We try to strike at these vulnerable areas.

This offensive formation is rather strong under the basket and in the corners. The center and two forwards will present an effective follow-up situation underneath the basket, while the formation maintains defensive balance by keeping at least one man back at the top of the circle. Diagram 2 shows a scoring play against the 1-3-1.

O2 passes to O3 in the post and goes to the end line. Then O3 passes to O1

(Continued on page 50)

Issuing Equipment

(Continued from page 38)

equipment. The players start out the week on Monday with clean equipment. After Wednesday's practice, they place all of their washable items in a large box designed to hold soiled laundry. The players themselves are responsible for getting their soiled equipment in the box. When the

players report for Thursday's practice, they go to their individual equipment boxes and get a clean supply of socks and the like. The same procedure is repeated before Saturday's game.

Having an individual equipment box for each player also saves on storage space for game equipment. The player's game pants, his two game jerseys, his game shoes, and other items which are not used for practice are kept in the player's own box during the week. When game time comes, there is no necessity for a confused period of issuing the game equipment, because each player simply goes to his own box and gets his necessary items.

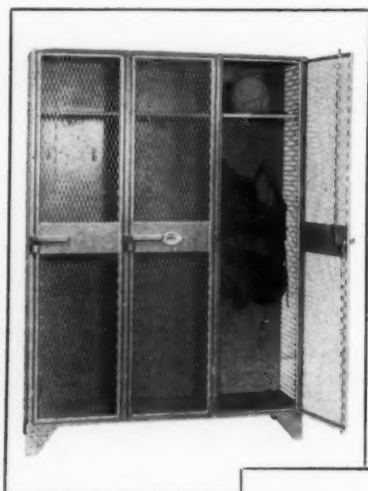
Whenever the game or practice equipment is returned from the laundry or dry cleaners, the managers sort it and place it in the proper player's box. Since every sock, T-shirt, and towel bears a number, the team managers are able to take the items straight from the laundry bag and place them in the corresponding box numbers.

This system makes it easy for the coaches to check up on their equipment at the end of the season. After all equipment has been laundered and returned to the proper boxes, the coaches can tell instantly whether or

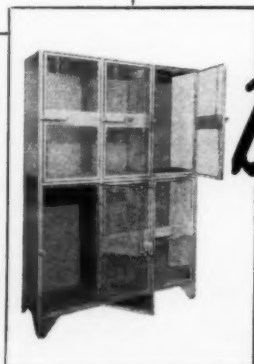
not any equipment is missing. Each box should contain three towels, three T-shirts, etc.

With 33 boys dressing in the same room, there is always the possibility that they will get their equipment mixed up. Players will not be able to remember a long string of numbers for all of their pieces of equipment, and having as many numbers as possible to correspond with players' wall hooks and equipment boxes is a vital help. Naturally, the more durable equipment, such as game jerseys, cannot have numbers matching the players' wall numbers. In such cases, a master chart of equipment numbers is posted, and whenever a player is in doubt about the number of any of his equipment, he needs only to refer to that list.

Another aid to the care of and storage of equipment is a drying room, adjacent to the players' dressing room. If player Smith has dressing area 12, he also has two metal hangers marked 12. These hangers are suitable for storing a complete football outfit. Each afternoon after practice, the player places all of his equipment on these hangers, and takes the hangers into the drying room, to a place marked with his individual number



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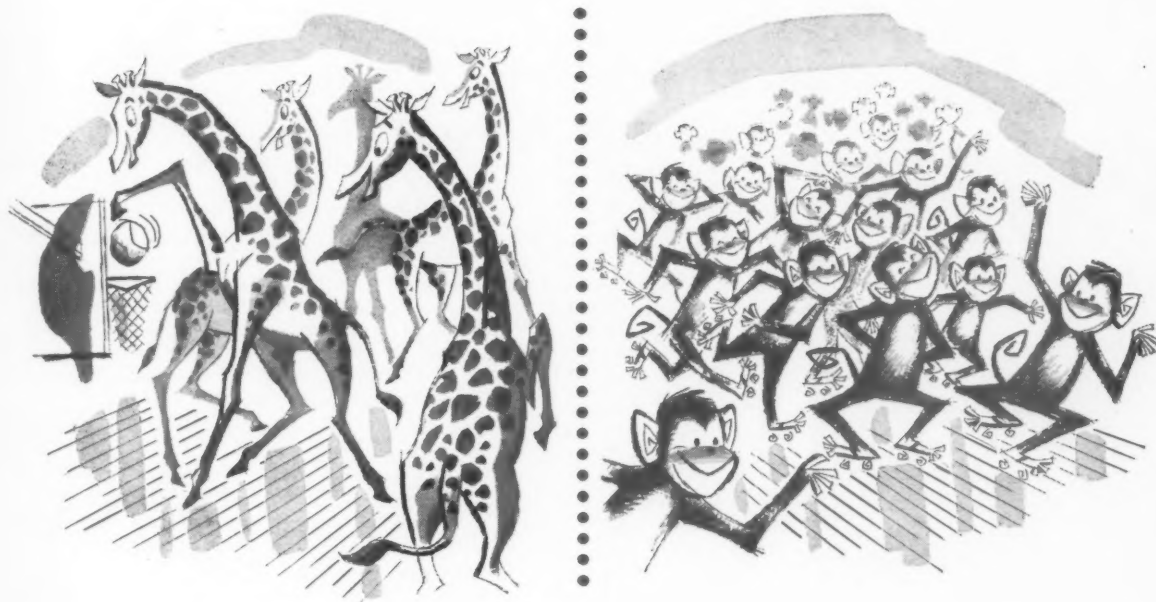
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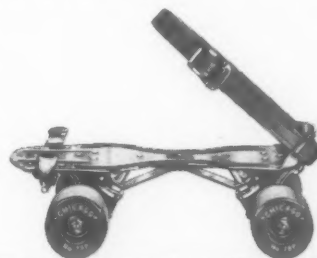
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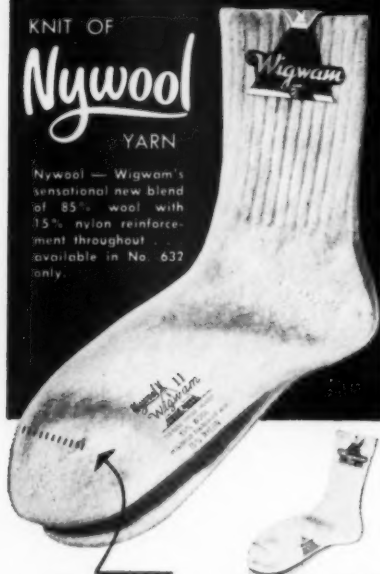
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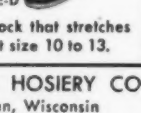
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12. When the player returns the next day for practice, he will find that his equipment, wet after the previous practice, is now dry. This procedure also aids in cutting down on the loss of equipment. If the player puts his pads and apparel on the hanger after each practice, he can expect to find his equipment the next day. By following this method no items will be left around the dressing room floor.

Offensive Pattern

(Continued from page 32)

03 by giving him a two-hand overhead pass. We feel 02 is in better position to see what the defensive man covering 03 is going to do than 03 is himself (Diagram 4).

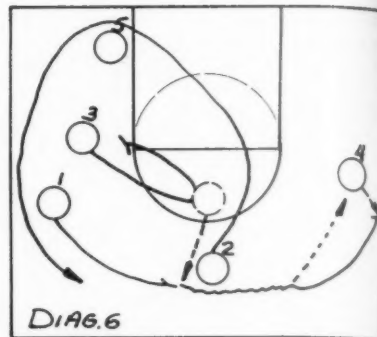
Fifth Option. A bounce pass to 03 will indicate that 02 will immediately cut by him for a return pass. When the return pass is made to 02, he may stop and jump shoot or go all the way under for the lay-up. 02 must decide whether he will cut to the right or left side of 03 for the return pass (Diagram 5).

Once the ball has been returned to 02 by 01, that guard comes out to maintain floor balance and to act as safety for 02 who has now become active in the pattern.

Sixth Option. If 03 cannot return pass to 02, who is now the cutter, 03 can fake the pass and pivot to the opposite side of 02's cut and hook or jump shoot from the top of the circle.

Seventh Option. Should 03 be unable to hit 02 and now finds his way to his attempted shot blocked, he passes out to 01. 03 moves back to his original position, 02 comes out on the same side of the floor as 03, 01 passes into 04, and we begin to work the same options to the opposite side of the floor (Diagram 6).

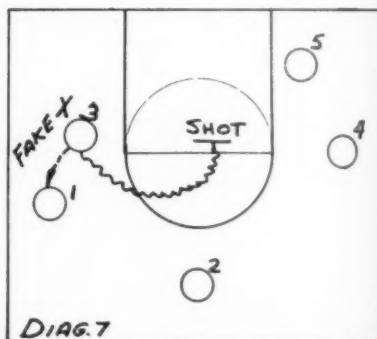
We have been asked what our players do when the defense overplays the forwards to stop the initial pass. The guards are instructed to drive



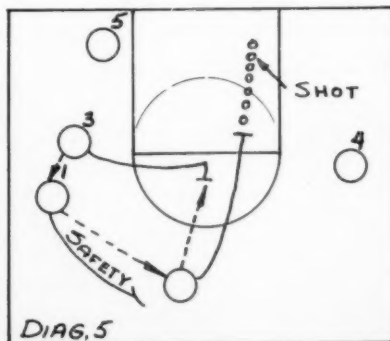
DIAG. 6

through the free throw lane if they can do so. In fact, after a few passes have been completed to our forwards, most defenses will spread, giving us plenty of room to drive the guards through the key. When the defense closes up we go to the outside again. In one game last season our team scored four consecutive baskets by going through the key before the defense moved in. These four baskets were scored because the players started to work on the outside first.

Our forwards are told that if their men start to overplay them after they get the ball in an obvious attempt to break up the return pass to our guard, they should fake the return pass to the guard, drive away from our guard,



DIAG. 7



DIAG. 8

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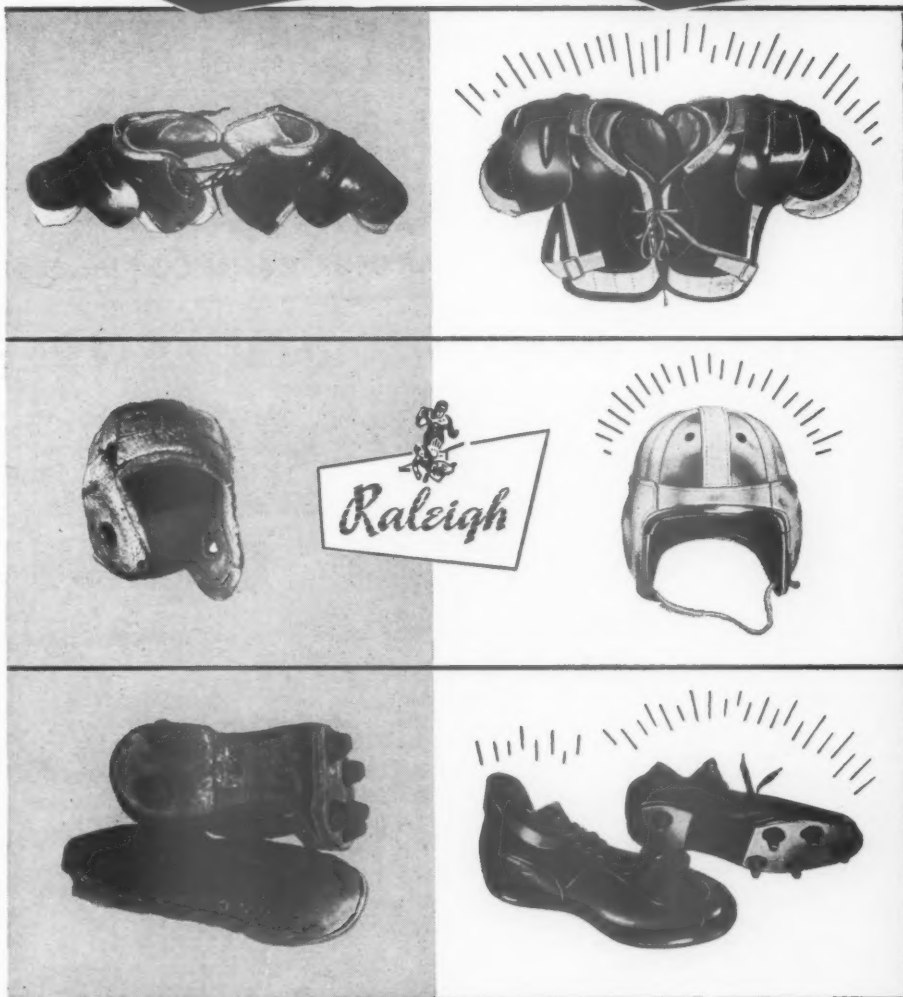
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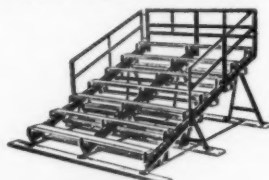
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and head for the basket for the lay-up shot. In most cases the defensive man will be unable to cover this maneuver because of his position (Diagram 7).

We have tried free-lancing, numbering plays, and a run-and-shoot game, but feel that our boys must be given a place to go with the ball. If one area is blocked, then it is our duty as coaches to provide them with an immediate alternate scoring area. Some coaches may think this pattern is too complicated. Last season we coached only seventh grade boys. One of our first six boys was eleven years old and our oldest player was thirteen. They believed in the pattern, mastered it, and used it successfully in competition.

Zone Barrier

(Continued from page 46)

who flips to O4. O5, who is in the corner, sets a quick block on the under-the-basket guard and O4 passes to O1, who is coming around behind the screen. Should the defensive guard who is blocked become overly cautious and shy away from the blind screen

BOB WATSON graduated from Arkansas in 1950 and has spent his coaching career in high schools in that state. He has written three basketball articles and one football article for us.

set on him, O5 comes around him and receives the pass from O4 for a shot underneath the basket. O1 maintains defensive balance at the top, while O3, O4, and O5 move in for rebounding strength.

2-3 Attack Against the 3-2 Defense

The 3-2 zone is one which strives to place the three front men in advantageous quick-break positions. Although these players in the 3-2 zone can put tremendous pressure on the two offensive front men, there are a sufficient number of weaknesses which are shown in Diagram 3 to offset this advantage. Against a defense of this kind we use a 2-3 attack formation in order to outnumber the rebound guards underneath the basket. We try to maintain a passing triangle out in front with the two guards and center until an opportunity presents itself for a driving or scoring situation, as shown in Diagram 4.

O2 passes to O5, who drives toward the basket. Should he be stopped, he

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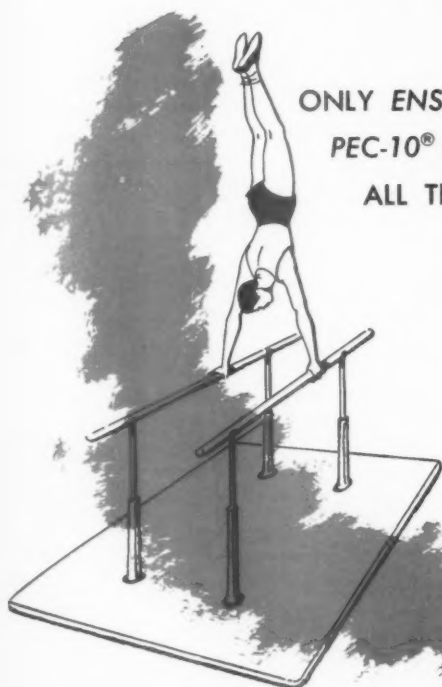


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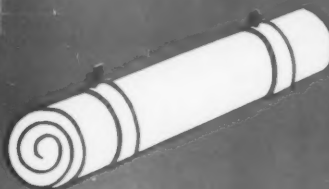
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may pass to O3 who has maneuvered behind one of the rear guards. O4 makes a similar move to the end line. O3 may shoot or pass to either forward. O3, O4, and O5 form the rebound strength, while both guards are back to offset the three-pronged fast break threat of the three front chasers.

1-3-1 Attack Against the 2-1-2 Defense

One of the best zones which may be used to slow down a potent post attack is the 2-1-2 zone, sometimes

called an all-purpose zone. The probable weaknesses of this formation are shown in Diagram 5 on the corners and on the sides. We use a 1-3-1 attack formation against it.

Diagram 6 shows a scoring play that is directed against the 2-1-2. O1 passes to O2, who drives until the rear defensive guard picks him up. O5 moves behind the guard to receive the pass, while O3 tries to get open in the keyhole area.

Another scoring possibility is shown in Diagram 7. O1 passes into O3 who flips to O4. O2 breaks across the free throw lane and receives a pass. He may shoot if he finds himself unguarded, or screen and pass to O5 who has buttonhooked in the corner behind the screen. O2, O3, and O5 attempt to move into rebound spots and the other two players drop back after the shot has been taken.

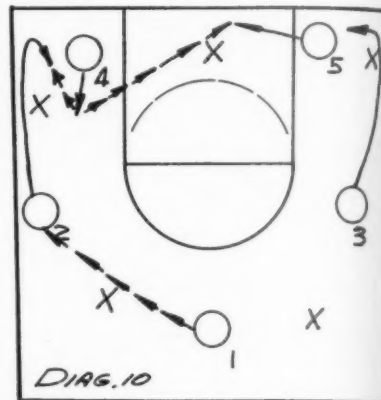
1-2-2 Attack Against the 2-3 Zone

The 2-3 zone is designed to prevent rebounding underneath the basket and presents a rather formidable defense for such tactics. However, the sacrificing of one of the front men in this attempt weakens it for long

shots in front and on the sides, as shown in Diagram 8.

We use a 1-2-2 formation against this particular zone. In the play shown in Diagram 9, O1 passes to O3, who may drive toward the base line. O2 drives across the free throw lane and receives a pass from O3. He may then shoot or pass to O3 or to O5 who maneuvers according to the diagram.

Diagram 10 shows another possibility. O1 may pass to O2 who hits O4 with a pass. Then O4 may pass to his teammates.



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Screening the Zone

(Continued from page 26)

governed by both the zone alignment and its floor coverage. In general, the indifferent zone will not react to the play of the offense as sharply and quickly as will an aggressive zone. Although it may sound complicated to be prepared for these eventualities, the action of the zone is a factor that must be taken into consideration.

The 1-3-1 Attack

Basically, we move from a 1-3-1 offensive setup. Against all zones, with the exception of the 1-3-1 itself, we are able to place men in open spots on the court as shown in Diagram 1 (a 2-3 zone is indicated). It also gives us the added advantage of playing a man behind the defense. The 1-3-1 attack places more of a burden than ordinarily expected on the back court man, but also enables us to use three forwards and a pivot man against the zone. This is especially advantageous in rebounding, an admitted strong suit in any type of zone.

Screens are set to reduce or minimize the defensive advantage. When the zone is outnumbered, it is highly vulnerable. Therefore, if our boys are successful in maneuvering the defense into covering up open areas, we know the team can score. Our screens are not set according to a pre-determined pattern as they are in a set play. Rather, we give each man a number of screening and movement possibilities that he may use should the occasion present itself. As a result, the attack is a free lance, spontaneous series of screens and moves.

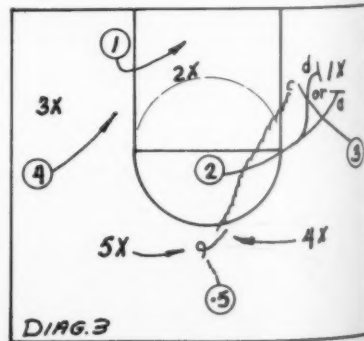
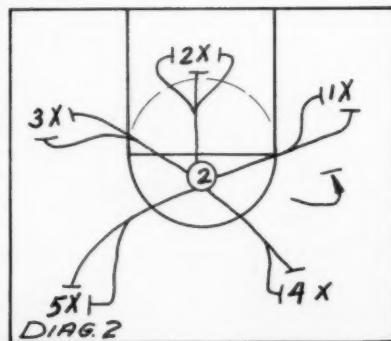
This offense involves two, and on some occasions three players in a given sequence. It assures a man for cover-up duties, and at least two players are always available for rebounding. This latter factor is important because a player who is not involved in a play knows he has rebounding re-

sponsibilities and can position himself accordingly.

After a few experiments with screens on various zone types, the coach will be able to devise his own style and patterns to fit his individual offensive attack and personnel. We have enjoyed far more success with simplicity of movement than with detailed or elaborate screening which might involve several sequences to complete a single play.

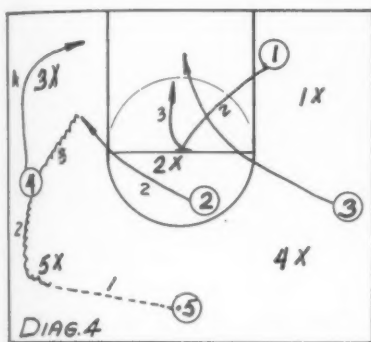
Once the team learns that it only takes one screen and follow-up move to distort the defense, the players will improvise and eventually exploit zone weaknesses far more effectively than the coach can hope to accomplish through the use of numerous diagrams. However, at the outset the basic movement patterns are outlined. For example, against the 2-3, diagrammed previously, O2 has screening and movement possibilities as shown in Diagram 2. O2, who is the pivot man, is in the best screening position. He has ready access to each defensive opponent. The coordination of his screen on X1 and the movement across that screen by O3 or O4 are a matter of timing and ball-handling. The actual floor position of X1 will dictate the use of an inside or outside screen. All of the other team members are limited to screening the three defensive men who are closest to their respective areas.

A simple, yet effective sequence to use as a starter begins with O5 in possession of the ball (Diagram 3). As shown in Diagram 3, the sequence is initiated by O2, who screens X1. Now the stage is set for O3 to take advantage of an open driving lane toward the slot. As O3 begins his break, O5 moves to a position between X4 and X5 in order to make these defensive men converge on him just beyond the free throw circle. A reverse pivot, as indicated by the diagrammed hook, will clear the floor toward the path of O3. Now O5 leads O3 with a bounce pass. Once O3 has the ball, he may exercise any number of options. He



may draw X2 on him and feed behind X2 to O1; use a hook or jump shot from this area; or return the ball to O5 for a screened set shot or a resetting of the play to the opposite side of the floor. Notice that O1 and O4 are in or near excellent rebounding position and O5 is available for cover-up duties.

Diagram 4 gives some idea of the possibilities of breaking one man loose against the zone, and further shows how the zone must react to playing without one of its men. In the play cited, X2 is in a situation almost beyond his control. If he decides to block O3's shot, he leaves his underbasket area wide-open for an easy feed to O1. If he lays back in anticipation of this feed, O3 is open to fire away. This particular sequence netted us numerous baskets during the past season.



Constructing a sequence for other team members, once these fundamental screens are under control, is a relatively simple matter.

The slot area poses problems of both congestion and time limitation. Screens in this area and movement through it require split-second timing and synchronization of attack. Although problems exist in this area of play, the time spent in working on the necessary timing and coordination is worthwhile. Scoring from this area is actually more valuable than the two points that are posted on the scoreboard. After successfully screening and driving or shooting the zone's toughest armor around the slot area, the team has not only added to its score, but has taken a certain amount of confidence and morale from its opponent. No team enjoys having its *aces trumped*. It is in slot area play that the O1 and O2 men are invaluable. Screening from behind, alternating positions, driving through or away from the immediate goal area present the zone with a changing offensive picture with each exchange of the ball. Knowing the possibilities,

the players enjoy playing against the zone.

When trying to screen the zone, the following points should be kept in mind:

1. Keep the sequence simple.
2. Screens and movement follow rapidly in one-two order.
3. The primary object of the screen is to distort the defense.
4. When two screens occur simultaneously, ignore them and reset the play.
5. Set screens toward the sidelines or back court.
6. The screener should use no more than a three count in any given

screen.

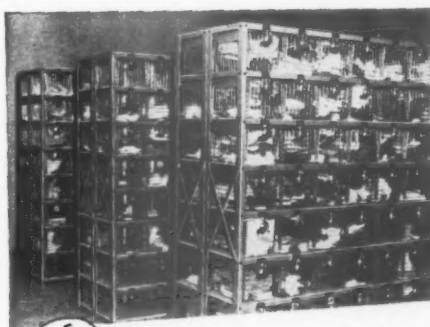
7. Movement should be directed as close to the screen as possible.

8. If the screening target moves, do not move with him.

9. If the zone adjusts to a missing man, be alert to feed newly opened areas.

10. As in other offensive systems, every attempt may not be successful—keep at it.

Screening the zone has been both interesting and highly successful for us. Should other coaches decide to incorporate this system into their offense—the best of luck, and good screening ahead.



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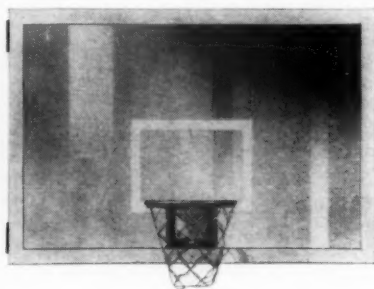
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Zany Zones

(Continued from page 22)

aggressive off the boards, offensively and defensively.

In order to get the ball the defensive team must know how to rebound. Rebounding ability is a key qualification of all the members of the defending team. A defensive principle is: *All five players come back under the boards.* Dig that ball out. Jump for it, do not hope or reach for it. Go get it.

There is no short cut to use in breaking up a zone. Unless a team has put in time practicing against zones, even though it has experience and poise, it will have trouble with them. The solution is putting in time and practice against zones by using game situations.

Having gained possession of the ball, the next step is to break down court at top speed. This maneuver can be accomplished by accurate, fast passing or dribbling. The direct long baseball pass is the fastest. Players must understand exactly what to do in fast, ever-changing situations. This phase of coaching calls for adequate instruction on the part of the coach. The long pass should be used whenever possible, especially when a teammate is in the clear. When using a short-passing fast break, the ball should be kept in the center lane. A passing fast break is the fastest, although if the team has an excellent dribbler, a dribbling fast break can be employed. The dribbler goes to the middle of the court, followed by sweepers, trailers, and cutters.

The fast break attempts to take advantage of an out-numbering situation such as 2 vs. 1, 3 vs. 2, 4 vs. 3, and overpower the defense to score. However, when the fast break is stopped, set patterns of attacks must be used. Team effort, not individual effort is required. Concentration by both the coach and the team is imperative in order to succeed in breaking up the zone.

Up to this point we have mentioned facts, but the truth of how to break up a zone is to take action. Proficiency against zones depends a great deal upon the ability of the coach to take action and inspire confidence in his players, that zones can be defeated.

We have used the horseshoe pattern to attack a zone. In order to use this pattern successfully the players must work as a unit, be poised, good ball-handlers, and good outside shots. The front court men should

be strong rebounders, able to move in and out, to the front and rear, and time their cuts to aid the back-court men. When the players have gained confidence against the zone, this team can go into the best attack against all zones, the 1-3-1. Later they can use the base line attack, taking into consideration cutting against the zone.

We have added three drills which we believe will set up the groundwork for breaking up a zone. They are: rebounding; developing sweepers; and the dribbling fast break. These drills are also good conditioners.

Zones can be solved and defeated only through the combined efforts of the coach and team. When the vital principles of breaking up the zone have been mastered, coaches will defeat these zany zones rather than throw up their hands and cry, "Let's outlaw them."

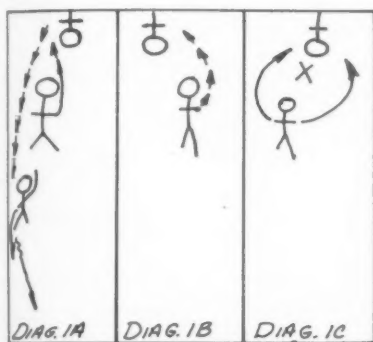


Diagram 1 shows three important fundamental drills: A. How to put the ball into play quickly. B. How to improve rebounding ability. C. How to get the inside position.

Two players are used in drill 1A, although the entire squad can be put in. The player who is under the basket tosses the ball high on to the backboard, using a high jump, eagle-spread, one-hand grab if possible. Before hitting the floor he turns in mid-air and passes out to the sideline to a teammate who is waiting. Then the teammate spins to the outside and dribbles fast down court.

Drill 1B calls for development of leg power, jumping, and timing ability. A player again tosses the ball high on to the backboard and keeps tapping it with both hands and on a given count. Five counts are allowed for an inexperienced player, 10 for a novice, 15 for a varsity player, and 20 or over for an All-American. The drill ends when a player makes a basket.

Footness of foot and clever footwork are called for in drill 1C. One player should be placed in front of a chair, bench, etc., while another player tries to get the inside without contact.

Once the ball has been placed in play, the lanes are occupied quickly and away they go, keeping the ball always in the center, using fast faking (Diagram 2). Sweepers square the corners and look for a bounce pass.



NEW ITEMS

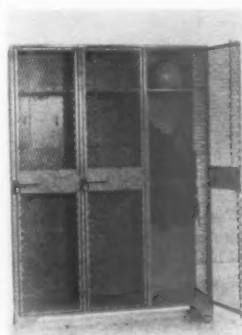
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For further information see Service Coupon, page 68



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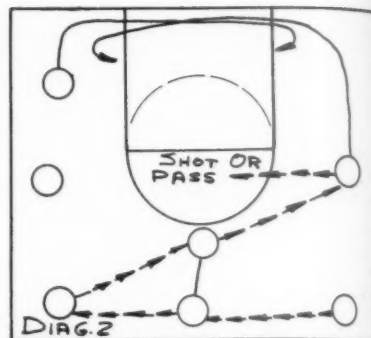
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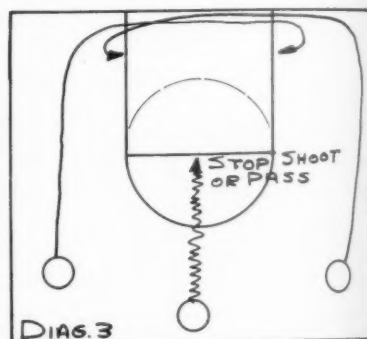
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The middle man stops and shoots or passes. He stays back for defensive balance and looks for a return pass.

Teams that possess a good dribbler use a dribbling fast break effectively (Diagram 3). The dribbler stops at the free throw line, shoots or passes and looks for a return pass. He must stay there for defensive balance.

In both drills the trailer follows up, coming in on a delayed cut from the opposite side of the ball.



Zone Under Attack

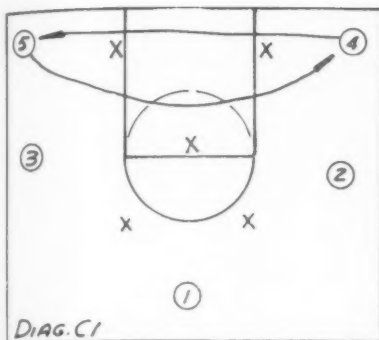
(Continued from page 16)

this pattern in mind the defense does not realize how close the side men are penetrating their zone.

The C Offense

Our C offense is basically a 1-2-2. The requirements for positions No. 1, No. 2, and No. 3 are comparable to those as described in the B offense. The No. 4 and No. 5 positions are occupied by the big rebounders who must be fairly mobile. This particular offense leaves the middle wide-open to spread the zone. Naturally, an attack of this kind is best suited to the cutting game. If the defense spreads to meet this offense, they will be greatly weakened in their shifts due to the increased distance they must traverse.

Diagram C1 shows the basic movements of this offense. The inside men, No. 4 and No. 5, shuttle back and forth from corner to corner. By hav-

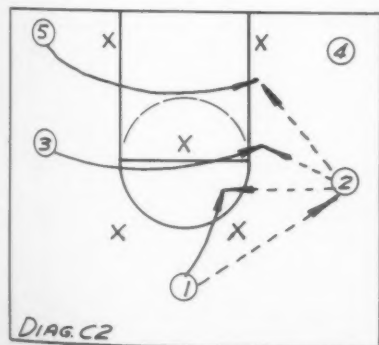


ing one man loop through the elbows and the other follow a straight path along the end line, the defense should be weakened in one spot or another. If the defense drops back on the end line man, who is No. 4 in Diagram C1, then the No. 5 man will be open at the higher position. If the defense moves up, then the end line man will be open. Some defenses have dropped back considerably to block up the paths of both players, but this has opened up our No. 1, No. 2, and No. 3 men for open shots from the outside.

Diagram C2 shows the various options that may develop as No. 1 passes into No. 2. With the middle open he may feed to No. 5 coming up, No. 3 coming across or No. 1 coming through. He may also feed into the corner which sets up the situation as shown in Diagram C3. The No. 4 man may shoot, pass to No. 5 cutting from the opposite corner, pass to No. 3 cutting through the middle down the lane or back to No. 2 who is also cutting.

Naturally, the open man will be determined by the opponents' shift. It will also be noticed that the open man will vary due to the effectiveness of previous patterns.

Diagram C4 shows the *cheat* play again. This play was described previously in the B offense. As No. 3 sets, it is imperative that No. 4, No. 5, and No. 2 break for the basket in order to be in rebound position. After the



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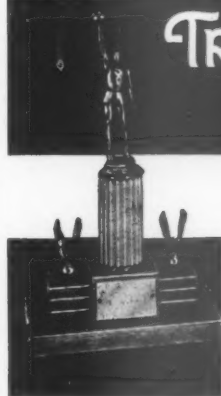


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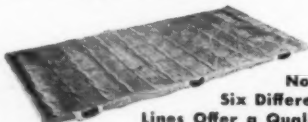
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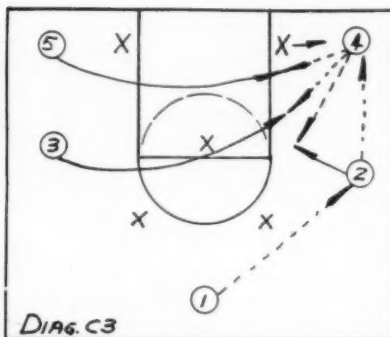
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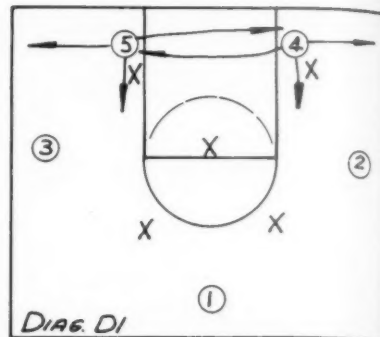
shot, the No. 3 man will take the deep rebound position and No. 1 will play safety.

An offense of this type should stop a zone from concentrating on blocking up the middle since no offensive player is permanently positioned there. The defensive players will hesitate, giving all five offensive players unhindered shots at the basket. By making the defense spread out, the middle will loosen up for passes to the cutters.

The D Offense

Our D offense is similar to the C offense but does vary in many respects. Positions No. 1, No. 2, and No. 3 demand the same qualifications as those mentioned earlier for similar positions in the different offenses. Positions No. 4 and No. 5 are the only two that vary. This offense sets up a double post and we have used it when two competent pivot men were available. These pivot men do not have to be extremely mobile, but if they are the entire attack will be improved.

Each pivot man has definite areas into which he may move. The movements of these players must be synchronized in order to weaken the defense. Each pivot man may move into the corner on his side, move up to the elbow on his side, and move to the under position on the opposite side when it is vacated by the other



pivot man's movements. Diagram D1 shows the various movements.

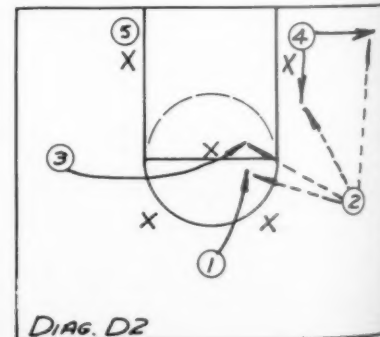
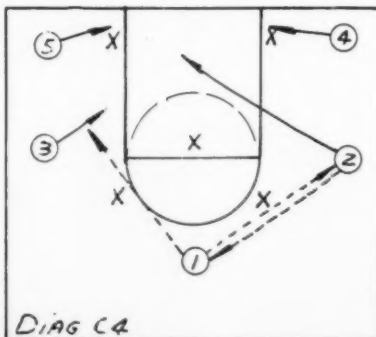
This offense is particularly strong on rebounds since in most instances the big men are located extremely close to the basket.

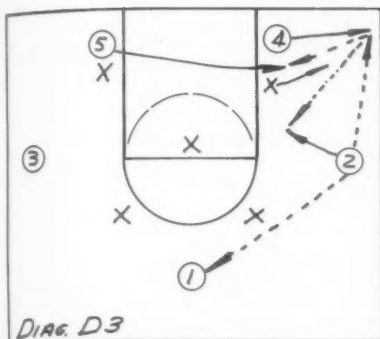
Diagram D2 shows the patterns that may be developed as No. 1 passes to No. 2. Naturally, No. 2 may be in position for a set shot if the defense does not move to cover him. He may pass to the No. 4 man at the elbow or in the corner. If the middle is left open, he may pass to No. 3 who is cutting across or to No. 1 who is cutting through.

Diagram D3 shows the various options that may develop as the ball is passed into the corner. The No. 4 man may set, give a return pass to No. 2 who cuts after his pass or feed to the No. 5 man who has filled his vacated spot under the basket.

The options which may evolve once the ball is passed into the pivot man at the elbow are shown in Diagram D4. In this case the No. 4 man may pass to the No. 2 man who has cut after his pass, feed under to the No. 5 man, or give to the No. 3 man who is also cutting for the basket from the weak side. Naturally, the No. 4 man may be in position for a jump shot or a drive-in shot, especially if the defense drops off to cover under the basket.

It is extremely simple to work the cheat play for the close shot in this





offense. Again, the players should be in good position for the rebound, especially since the big men are so close to the basket.

In our opinion, too many coaches are content to attack all zones with one basic attack. This situation is comparable to a football team attempting to go through a game with but one or two plays. As basketball players become used to one type of zone attack, their movements may well become stereotyped, never varying from one game to another. If his team is scouted, a coach may be in for a rough evening if his attack is not varied.

In attacking a zone it has always been our theory that the outside men, whether it be the four men as in the A offense, or the three men in the B, C, and D offenses, will usually get their outside shots from relatively similar spots against most zone defenses. Therefore, we require our players to practice shooting from these spots each night of practice. The players will soon find that these shots will become almost automatic. We believe most coaches will agree that the best offense against almost any zone is good outside shooting. Perfect this phase of the game and no zone should give much difficulty. As the team's outside shooting loosens up the defense, the various patterns as described previously will be developed more easily.



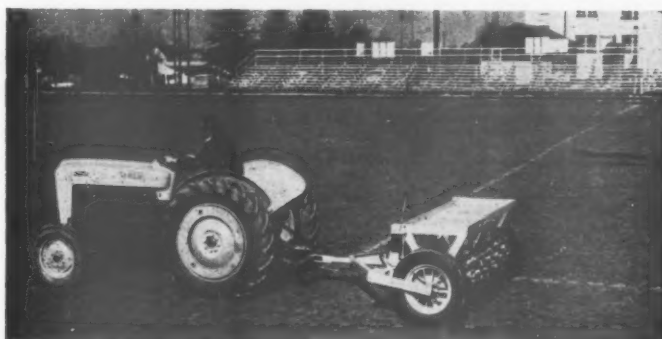
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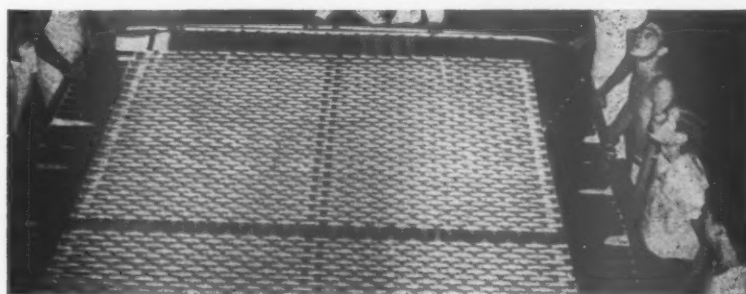
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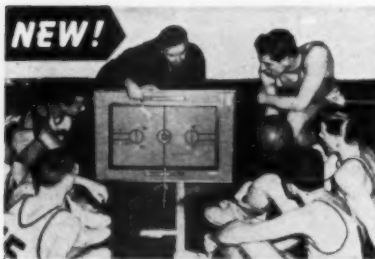
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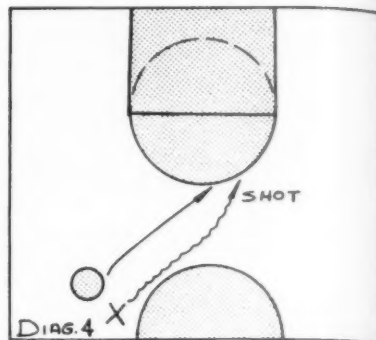
The PROGRAM AIDS Co., Inc.
Dept. AJ, 550 Fifth Avenue, New York

Jump Shots

(Continued from page 12)

closely after his maneuver to get his shot away, he should then fake a drive for the basket, leading with his right foot. As the defensive man moves over to check him, he should retract his lead foot and get his shot away as quickly as possible. Diagram 2 shows this maneuver.

A third maneuver that can be used is shown in Diagram 3. In this maneuver the post man takes a step backward, toward the goal. As the de-

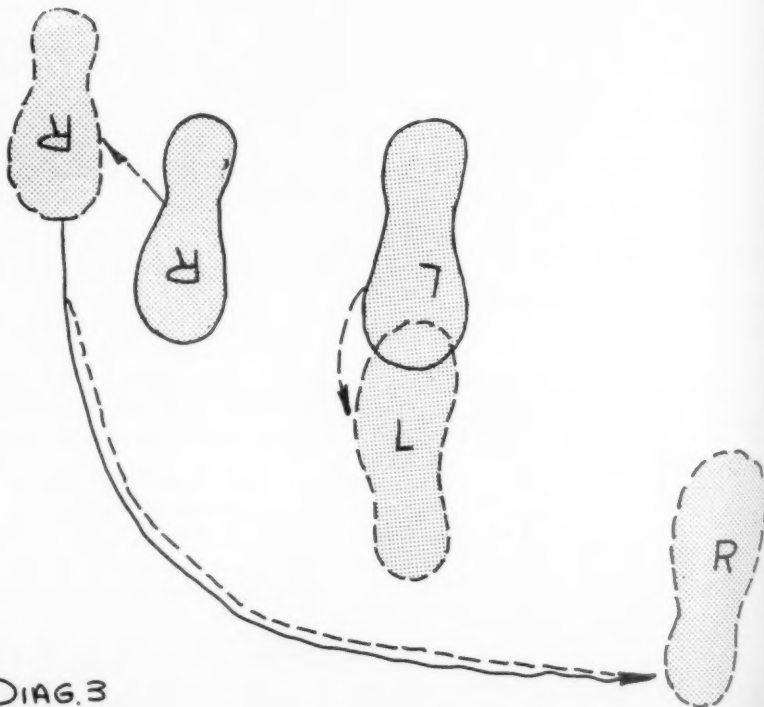


fensive man moves over to cover him, he retracts his leg, executes a forward cross-over, and gets the shot away before the defensive man has time to recover his position.

Maneuvering From a Moving Position

The jump shot is executed more easily if it is taken while a player is on the move, making it very hard for the defensive man to know when the opponent is going to shoot. In order to be able to execute this shot satisfactorily the player must be a good ball-handler. A drill to be used in teaching this maneuver is shown in Diagram 4.

The offensive player takes the ball at mid-court, with the defensive man in normal guarding position. In executing the shot the offensive player may do one of two things. He may



DIAG. 3

drive in toward the basket, and if the defensive man is not covering him too closely, plant his feet and get the shot away. Another method he may use is to drive in, and on seeing that his man is covering him too closely, stop, give an arm and head fake upward, and get his shot away before the defensive man is able to recover.

We would like to say that basically the jump shot is similar to the other shots in basketball. However, in order to be effective it must be preceded by faking or some type of maneuver which enables the shooter to clear his defensive man.

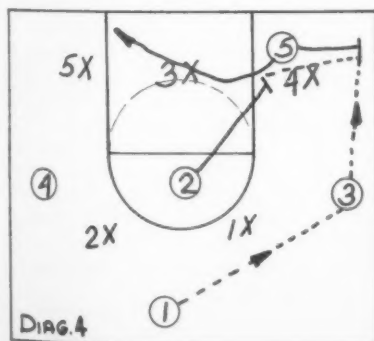
Zone Breaker

(Continued from page 24)

the zone tends to collapse inward, enabling 04 to slide into the open free throw line area for the shot, after receiving the pass from either 05 or 03.

Diagram 4 shows a play in which 02 makes an abrupt movement into the deep pivot. He receives the pass from 05. If X3 over commits himself, 02 is able to roll completely around either for a lay-up or a close jump shot.

The plays shown in the accompanying diagrams represent the reasoning behind an emphasis on the middle man to break a zone. They require a skilled all-around player. It is not necessary that he be tall, but he should be agile and quick. He needs the help of four teammates who are good ball-handlers and are able to see a personal contribution in the success of the middle man's shooting. Obviously, zone defenses may adjust or change to handcuff the middle man; for instance, in the 1-3-1 zone. A coach must have several offensive patterns. However, the development of the middle man is the basic step in the organized attack against the zone, for a skilled middle man will put pressure to foul on the zone defense. As a threat the zone must solve, the middle man makes things easier for the outside shooter.



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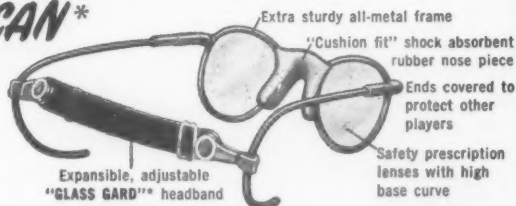


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Producing Champion Divers

(Continued from page 6)

Another device that is rapidly proving to be a valuable adjunct to coaches of sports requiring agility from performers is the trampoline. There is an easy transfer of learning between the trampoline and the springboard, with correlation very high in many of the acrobatic stunts. The use of the trampoline also allows

acrobatic stunts to be repeated rapidly in a shorter space of time, hence learning is faster and retention is greater.

Any useful item of equipment that the coach can find or invent should be used to help the diver improve his performance. This maxim holds true for the use of visual aids. One of the

best visual aids recommended is the use of divers who have the ability to demonstrate exactly what the coach is desirous of having his students learn. The past decade has seen great strides made in the use of the slow motion picture film as a coaching aid. It should be pointed out that the slow motion camera is not the best picture aid for the highly skilled activity of diving; the stroboscopic camera is far superior. Its function is to stop the action of fast-moving objects by photographic means, so that as many as six or more body positions are recorded on one negative. With the execution of the dive pictured at intervals on one photograph, the coach can readily point out incorrect techniques and advise the diver accordingly.

Another visual aid that has proved valuable to those who have used it is a three-dimensional rubber doll, completely flexible and easily adjustable to different body positions. Used to demonstrate correct technique, it is low in terms of dollar cost and high in terms of practical value. While many coaches reported they did not have this aid available, Dave Armbruster, of the University of Iowa, has used a homemade device of this nature since about 1928. He recommends cutting a small figure in the shape of a gingerbread man from flat sponge rubber of half-inch thickness. The figure should be about ten inches long. Eyes, nose, and mouth can be drawn in, which will help distinguish, at a glance, front and back; and left and right.

One of the greatest problems in learning a new dive is that of overcoming fear. The diver must conquer his fears as a self-disciplined act if he wishes to make progress. One method recommended for instilling confidence in the diver is the use of the freely adjustable fulcrum. Being able to set the fulcrum to one's own feeling for security in the take-off helps in overcoming fear. The use of appropriate visual aids, the trampoline, and the diving board over a sandbox, should not be overlooked in helping the diver overcome a fear complex.

An excellent method for teaching a new dive is to have the diver bob from the bottom of the pool, going through the dive movements on the rise from the bottom; performing all movements of the dive, from simple to complex, under water. Repetition of correct movement in proper sequence establishes neuro-muscular patterns that become the habits of desired performance.

Having divers form a mental image of how the dive should be per-

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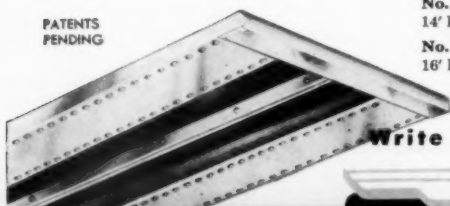
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formed before attempting it is strongly recommended. The practice of visualizing for a split second all the symmetry, continuity, coordination, balance and beauty of performance required for the perfect dive is helpful in attaining this goal. Intense concentration is required on the part of the diver and helps in the development of the diver's kinesthetic sense.

To make the unknown known is, in essence, what the diver must do when he is attempting a new dive. With a proper progression of lead-up dives, a basic understanding of correct body movement and confidence in his coach's direction, the diver should have no problem in breaking through the invisible curtain of fear. All new dives should be learned from the one-meter springboard before attempting them from the three-meter board.

The diver should keep his eyes open for spotting fixed and familiar check points during passage through the air in the less complicated dives; however, in dives involving multiple spins and twists, he should feel his way with his eyes closed, opening his eyes to spot the entry.

The best time for a diver to take a breath on all running forward front dives is during the hurdle. On all dives performed from the back take-off position, the diver takes his breath when lifting the board; this is meant to be at that point where he raises his arms prior to the initial downward press of the springboard. Certainly the most advantageous and natural time to take a full and complete inhalation is when his rib cage is raised by the upward thrust of his arms; however, with his chest filled to capacity, tightly tucked body positions are not readily obtained, resulting in loss of efficiency for the maneuver. This position would be disastrous when performing an inward two-and-one-half somersault from the three-meter springboard. Therefore, it is recommended that, for optimum results, only a partial inhalation be taken by the diver during the hurdle or when lifting the board.

Competitive springboard diving is a strenuous activity for which the body must be properly prepared. A few simple stretching exercises designed to loosen the muscles of the body, prior to diving, are advocated.

Coaches should be able to relate the laws of motion and body mechanics to diving. An understanding of the principles of body mechanics is important for all acrobatics, whether performed from the tumbling mat, trampoline or springboard. Pertinent material from Dr. C. H. McCloy's treatise entitled "Mechanical Analy-

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sis of Physical Education Activities" is excellently treated in *This Is Trampolining*, by Frank LaDue and Jim Norman, and is recommended as a reference book for information concerning the application of body mechanics to springboard diving. A thorough understanding of the principles of leverage will enable the coach to explain the actions required to attain optimum efficiency in complicated spin and twist dives.

Among the points that are considered when judging a dive are the technique and grace of the dive during the diver's passage through the air and entry into the water; therefore, coaching on all aspects of the dive is important. Since most diving judges are strongly influenced by entries, learning to streamline the body is desirable. Executing many pike and layout dives from the one-meter springboard and concentrating on the stretch is one of the best methods for achieving this effect. Performing handstands with emphasis on stretching the legs, with the toes pointed sharply, is also beneficial.

Having divers judge each other during practice is considered of value to the overall development of the diver's skills. Intrasquad diving contests and having the diver read literature pertaining to diving are good methods for sustaining his interest throughout the season.

Success in diving does not come easily. As in every other endeavor, skill depends primarily on frequent and regular practice with expert coaching. For purposes of keeping a fine sense of timing and coordination, two practice sessions daily are recommended, patterned after the following workout plan offered by Bruce Harlan, National and Olympic diving champion.

During the three competitive months of the season, a diver should go through two workouts per day—six days a week.

First workout—45 minutes. Five minutes warm-up and stretching the toes. Two or three of each of the required dives. One or two of each of the optional dives. Ten minutes on each new dive or dives that are difficult for the diver.

Second workout—90 minutes. Start with one each of the diver's list of dives. Five or six of each of the optionals. Three or four of each of the required dives. Work on new dives.

The low board should be used one day or several days, then the high board. An equal amount of workout time should be spent working from the high board as is spent from the low board.

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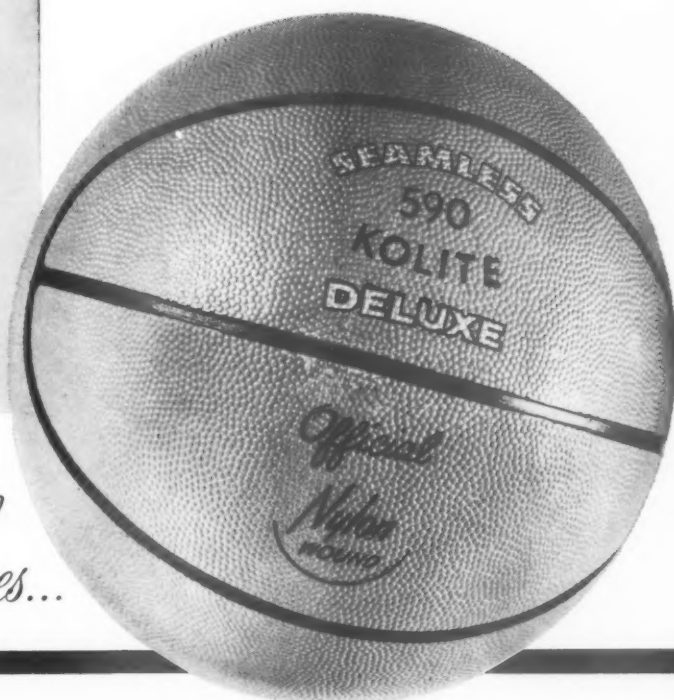
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by **SEAMLESS**



- ★ New Plateau Pebbling and Wider Channeling for surer grip and better passing, dribbling and shooting.
- ★ Waterproof, Scuff-Proof KOLITE Cover torture-tested in the equivalent of 22 years of play without fracture or rupture.
- ★ Nylon Winding prevents tearing and insures years of extra life.
- ★ Butyl Bladder virtually eliminates need for reinflation.
- ★ Patented KANTLEEK Valve is self-sealing, absolutely leak-proof.
- ★ Inspected for Perfection—only balls meeting the highest standards qualify to wear the "590 Deluxe" label.
- ★ Approved by N.C.A.A. and N.F.S.H.S.A.A.
- ★ List—\$21.25

580 BASKETBALL with KOLITE cover, Nylon winding, butyl bladder and KANTLEEK valve. Approved for use by professional, N.C.A.A. and N.F.S.H.S.A.A.
LIST—\$15.65

ATHLETIC GOODS DIVISION

THE SEAMLESS RUBBER COMPANY

NEW HAVEN 3, CONN., U. S. A.



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SAFE!**

**SEND YOUR
FOOTBALL
EQUIPMENT
TO**



IVORY SYSTEM

Why take chances with valuable athletic equipment? Send football shoes, uniforms and protective equipment to Ivory System **where you can be sure** of expert repairing, cleaning and reconditioning.

Also, with Ivory System you have **complete protection** plus added convenience at no extra cost. From the day the football season ends till next year's practice starts, your equipment is out of your way, fully insured and fully protected in unexcelled storage facilities.

**AMERICA'S OLDEST and LARGEST
RECONDITIONERS of ATHLETIC EQUIPMENT**

The **IVORY**  **SYSTEM** *inc.*

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SOLE DISTRIBUTORS OF:

VITA-SAN

Offers positive protection against athlete's foot in shoes and locker room.

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Longest wearing and toughest lacing material ever made for athletic shoes.

